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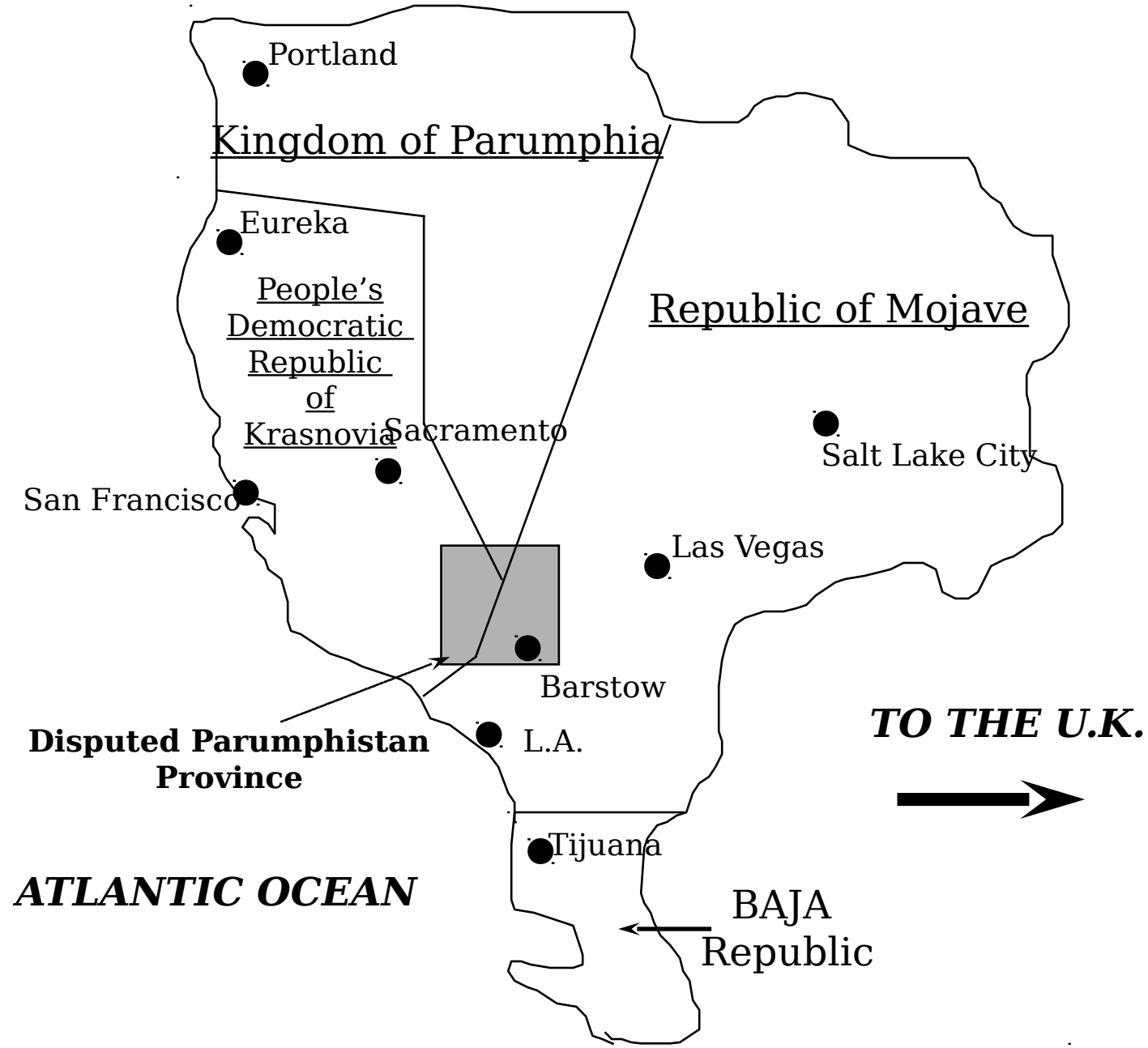
SECTION I

ORGANIZATION & EQUIPMENT

NTC Scenario

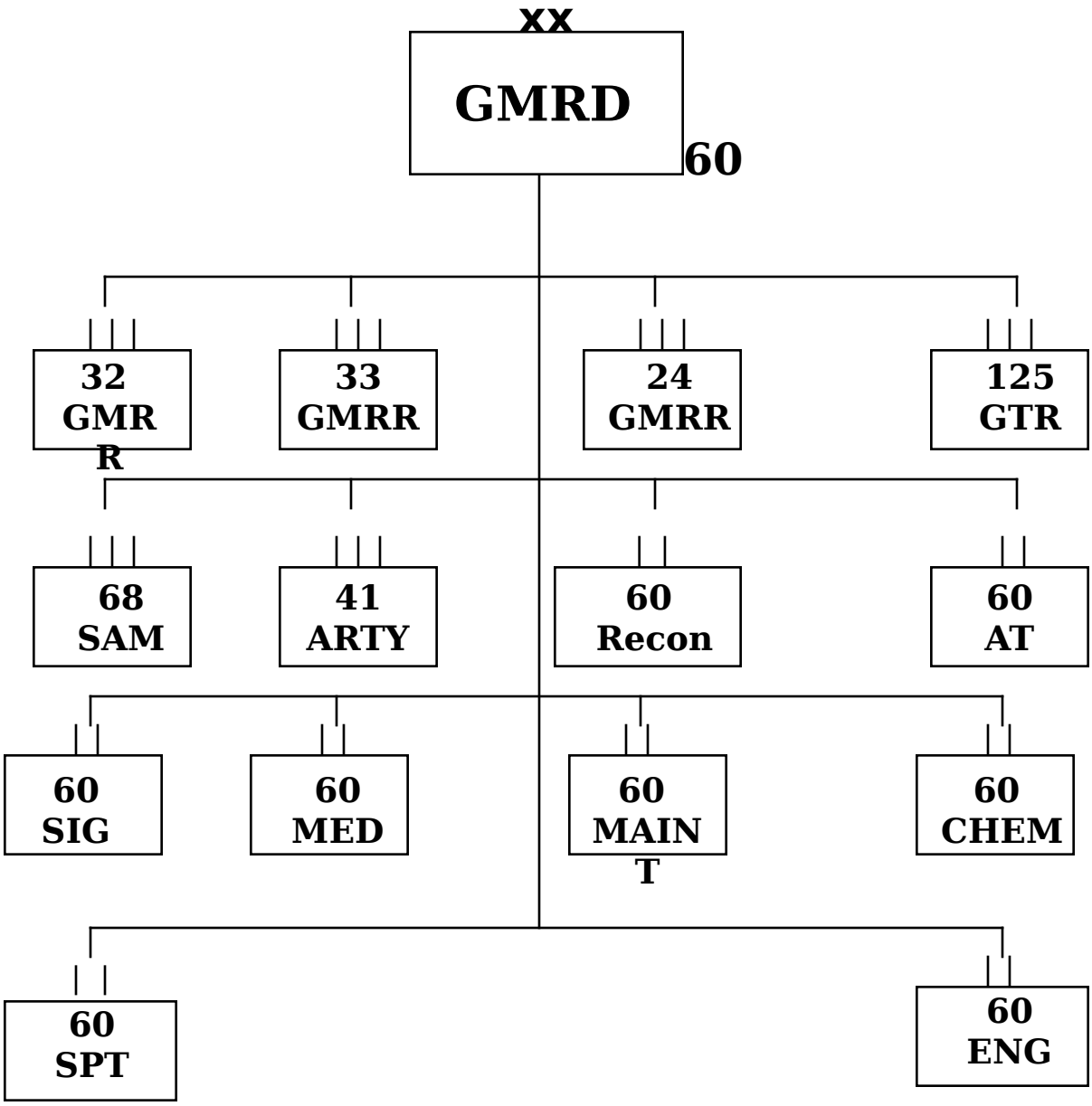
ISLAND OF TIERRA DEL DIABLO



What is “Krasnovian?”

- Parent organization is 60th Guards Motorized Rifle Division
- 32nd Guards Motorized Rifle Regiment or 125th Guards Tank Regiment combine with some higher level assets
- **Current doctrine based on TRADOC PAM 350-16**
- Krasnovian tactics represent one interpretation of OPFOR doctrine, may vary based on limits of equipment, space, size, and **METT-T**
- Realistic, unpredictable, **modernizing**, uncooperative opponent…**flexible** but doctrinally consistent
- NOT TRAINING AIDS, BUT SPARRING PARTNERS

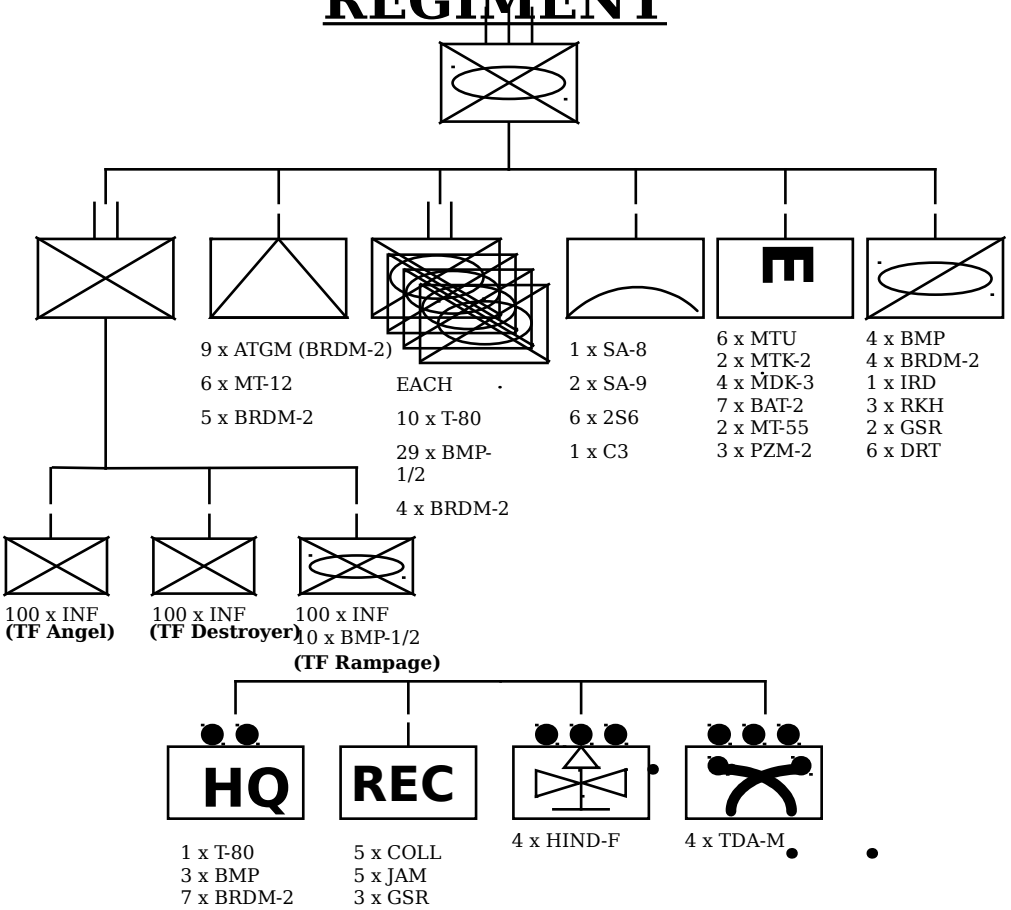
60th GMRD


XX
GMRD
60
32
GMR
R
33
GMRR
24
GMRR
125
GTR
68
SAM
41
ARTY
60
Recon
60
AT
60
SIG
60
MED
60
MAIN
T
60
CHEM
60
SPT
60
ENG

Division Support to the MRR

- **Divisional Reconnaissance and REC**
- **CSS**
- **Special Task Forces**
- **DAG (BM-21s, 2S5s, 2S3s)**
- **Special munitions (chemical, FASCAM using NTC-IS)**
- **Army Artillery Group (2S7s, fire for TF Angel and may fire persistent chemical agents)**
- **SOKOL, IVAN**

NTC OPFOR
32nd GUARDS MOTORIZED RIFLE REGIMENT



NTC DOCTRINAL COMPARISON (MRR)

EQUIPMENT	DOCTRINE	NTC	NOTES
BMP-1/1P	133	129	•Normally organized into 4 MRBs of 29 x BMP, 4th MRB acts as DIV FD
T-72/80	31	31/10	•10 x Tanks usually used as DIV FD
BMP-1 (M113)	0	22	•10 used for dismounts (TF Rampage) 12 used by Eng Co
2S1	18	18	•Only 6 x 2S1s are replicated, the remaining are
2S6	6	4	notional
ZSU-23-4	0	2	•SA-19 launcher is non-operational
SA-9/13	6	2	•Replicated by ASET IV
SA-14/16	18	18	•2 x SA9 are replicated by ASET IV
BRDM-2 AT-5	9	9	•Replicated by Stingers and Green Star Clusters
MT-12	6	6	
MTLB	6	10	•VISMOD HMMWV with TOW II
BRDM-2 (RECON)	4	4	•Real or VISMOD systems
BRM-1K	2	1	•MT-12 prime mover and infantry carrier
BRDM-2rkh	3	3	•RECON Co also has 4 x BMP-1
			•VISMOD BRDM-2 with GSR
			•Attached to REGT RECON Co

- **ASET IV** replicates 2 x ZSU-23-4, 2 x SA-9, 1 x SA-8, 6 x SA-14/16, 1 x C3
- **1 additional Engineer Company** will augment the OPFOR, usually with 4 x D7 and 4 x SEE
- **The RAG** (notional) is normally comprised of 1 x 2S1 Bn and 2 x 2S3 Bns

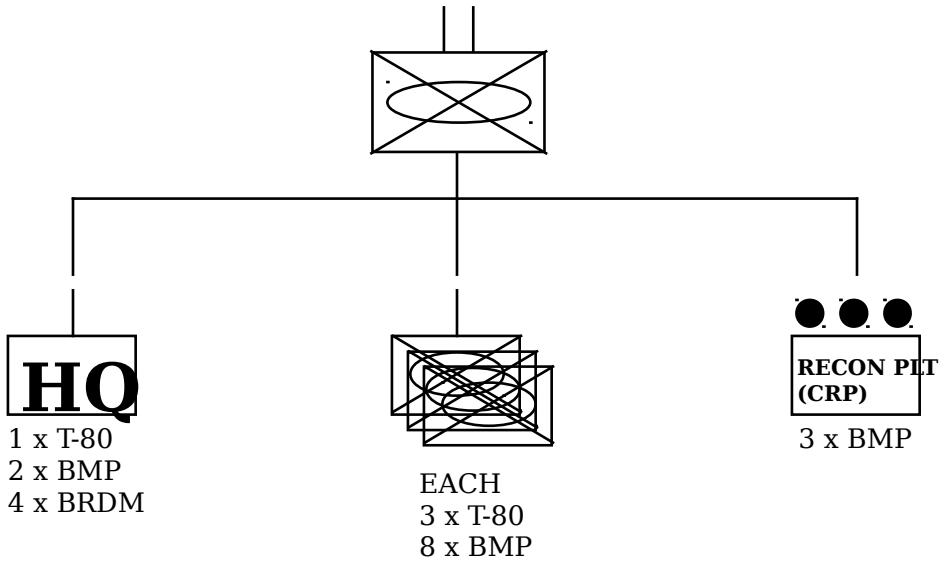
OVERVIEW OF THE MOTORIZED RIFLE REGIMENT (MRR)

- 3 x MRRs/1 x TR in a Krasnovian Motorized Rifle Division
- The Regiment is the smallest combined arms unit capable of limited independent action
- Most missions at NTC are MRB(+) level, but the NTC OPFOR can replicate up to an MRR (+) with some Division assets
- Can achieve up to 1.4:1 combat ratio for an attack

MRR BUILDING BLOCKS

- 2 PLATOONS = MRC
- 2 TROOPS = MRB
- 2 SQUADRONS = MRR
- 11TH ACR = MRD
  - » 2/3RDS NOTIONAL
  - » REPLICATED:
    - – **IVAN - SOF**
    - – **SOKAL - DIV RECON**

MOTORIZED RIFLE BATTALION



NTC DOCTRINAL COMPARISON (MRB)

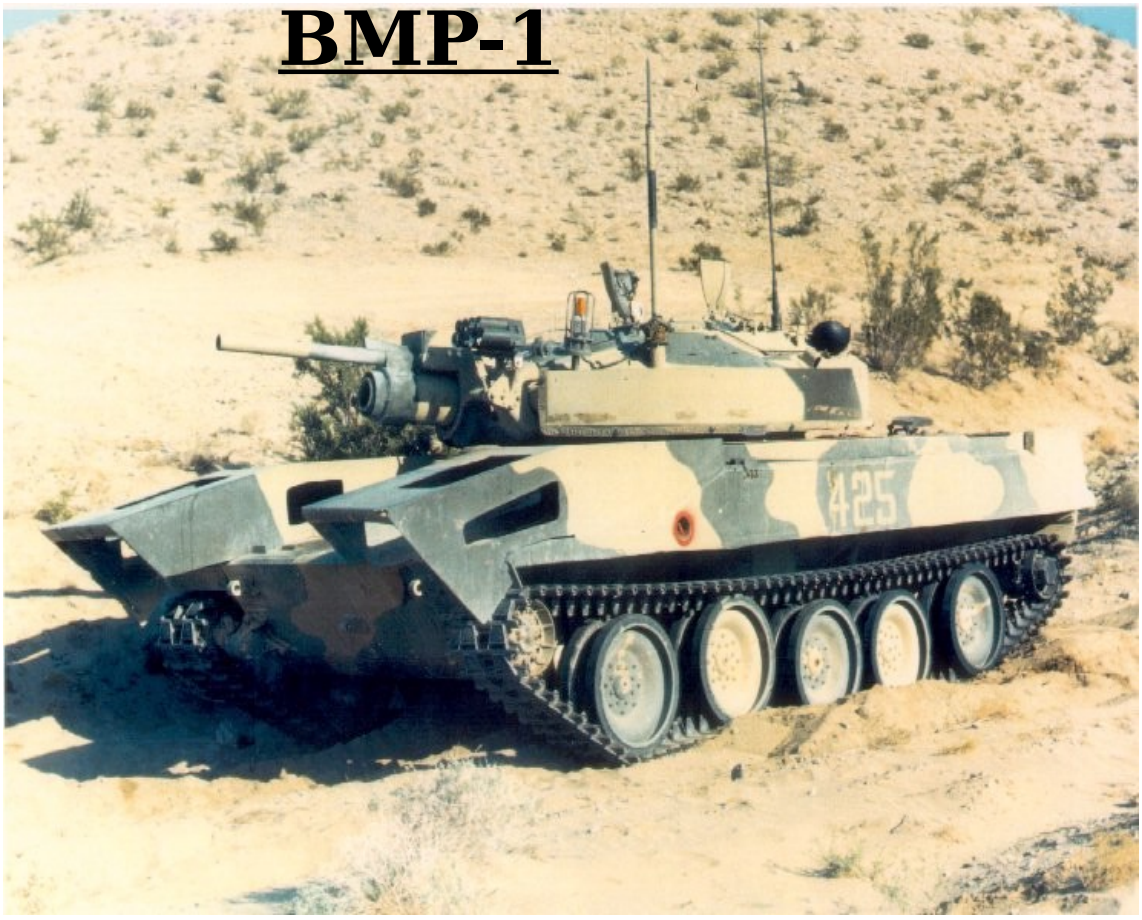
EQUIPMENT	DOCTRINE	NTC	NOTES
BMP-1/1P	41	29	•Number may vary depending on mission, 3 x BMPs are in RECON PLT
120mm MORTAR	6	0	•6 x 2S1s (VIS) may replicate mortar
AT-4	6	0	•NTC does not replicate AT-4
SA-14/16	9	9	•Replicated by STINGERS and GREEN STAR CLUSTERS
AGS-17	6	2	•May replicate with M-2 .50 CAL MG

VISMOD BMP-1

DESCRIPTION:

- **M551 chassis.**
- **VISMOD 73mm gun “resembles” a camouflage pole.**
- **May be fitted with a halogen spotlight.**
- **Cannot carry dismounts.**
- **Must halt to fire accurately.**
- **AT-3 has a 10 second track time.**

VISMOD
BMP-1



ARMAMENT:

Weapon	Range
AT-3 ATGM	3000m
73mm gun	800m
7.62mm coax	800m

HOW TO KILL IT:

System	PK-FS	PK-LS	PK-RS
TOW	70%	90%	90%
Dragon	60	90	90
M1 120mm	70	80	80
Viper	60	70	70

VISMOD
BMP-2

DESCRIPTION:

- **M551 chassis.**
- **30mm cannon longer and narrower than BMP-1's 73mm gun.**
- **May have a halogen spotlight.**
- **Carries no dismounts.**
- **Must stop to fire accurately.**
- **AT-5 has a 10-second track time.**

ARMAMENT:

Weapon	Range	Kill Code
AT-5 ATGM	3750m	08
30mm cannon	2000m	23
7.62mm coax	800m	27

KILL IT THE SAME WAY YOU KILL THE BMP-1

T-80 VISMOD

DESCRIPTION:

- **M551 chassis.**
- **Snorkel carried horizontally across the rear of the turret.**
- **Reactive armor added to the turret.**
- **IR searchlight to the right of the main gun.**
- **Must stop to fire accurately.**

ARMAMENT:

Weapon	Range	Kill Code
125mm main gun	2400m	10
AT-8 ATGM	3750m	07
7.62 coax	800m	27

HOW TO KILL IT:

System	PK-FS	PK-LS	PK-RS	PK-R
M1 120mm	30%	40%	40%	45%
TOW	25	35	35	30
Dragon	2	10	10	30
Viper	0.5	5	5	20
M2 25mm	0.5	0.5	0.5	1

Missions of the Motorized Rifle Battalion (MRB)

- 1st or 2nd echelon for a regiment in offense or defense
- Advance Guard
- Detachment: Forward, Enveloping, Raiding
- Reserve force for a division

Building the MRBs

- Squadrons form 32nd GMRR (2-11 rotation) or 125th GTR (1-11 rotation)
- Two troops pair off to form MRBs: A/1-11 with E/2-11, etc.
- Yields 4 MRBs, plus a “fifth maneuver element”

5TH MANEUVER ELEMENT

- **COMPONENTS:**
  - **C2: HHT 1/11 and HHT 2/11**
  - **EQUIPMENT: A, B, C TRPs AND D CO**
- **PECULIARITIES:**
  - **NORMALLY USED DURING REGIMENTAL ATTACKS**
  - **NOT A STANDING ORGANIZATION**
  - **CURRENT CONSTRAINTS:**

    # AVAILABLE VEHICLES

SPECIAL TASK FORCES

- **TASK FORCE ANGEL**

  TACTICAL AIR ASSAULTS
- **TASK FORCE RAMPAGE**

  MECHANIZED INFANTRY
- **TASK FORCE DESTROYER**

  DISMOUNTED ASSAULTS
- **TEAM SPECTER**

  REAR AREA ASSAULTS

VISMOD BMP-1 (M113)

DESCRIPTION:

- **M113 chassis.**
- **Small “frying pan” turret.**
- **Carries up to 11 soldiers.**
- **TF Rampage has 10 with no armament, which must be accompanied by a Sheridan BMP VISMOD.**
- **Engineers have 12 armed with 7.62mm machine guns to carry sappers.**

KILL IT THE SAME WAY YOU KILL THE OTHER BMPs.

BONUS: Kill the BMP, you get the passengers for free.

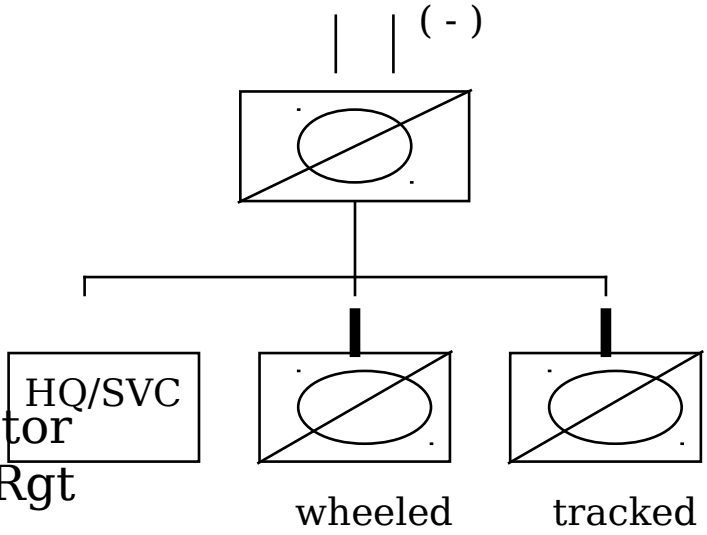
RECON ORGANIZATIONS

DIV RECON

Equipment:
4 x BRDMs 4 x BMPs
1 x BRDM w/GSR
Up to 6 DRTs
May be 1-3 T-80s

Commanded by:
Scout Platoon Leader

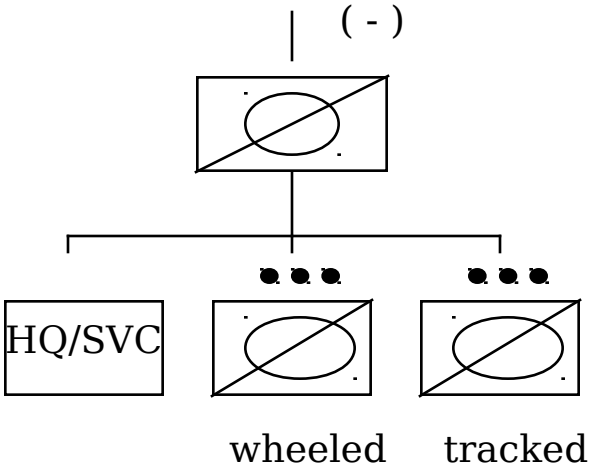
Peculiarities: Must exit sector no later than 6 hours after Rgt Recon enters. Symbol is a bucking horse with a guidon



RGT RECON

Equipment:
4 x BRDMs , 4 x BMPs
1 x Eng BRDM
3 x Rkh BRDMs

Peculiarities: RGT recon is commanded by and resources are shared with DIV recon; elements of recon may perform either mission at various times.



VISMOD
BRDM-2

DESCRIPTION:

- **HMMWV chassis.**
- **Multi-purpose vehicle used by scouts, GSRs, Chem and Eng recon and is the prime mover for DRTs.**

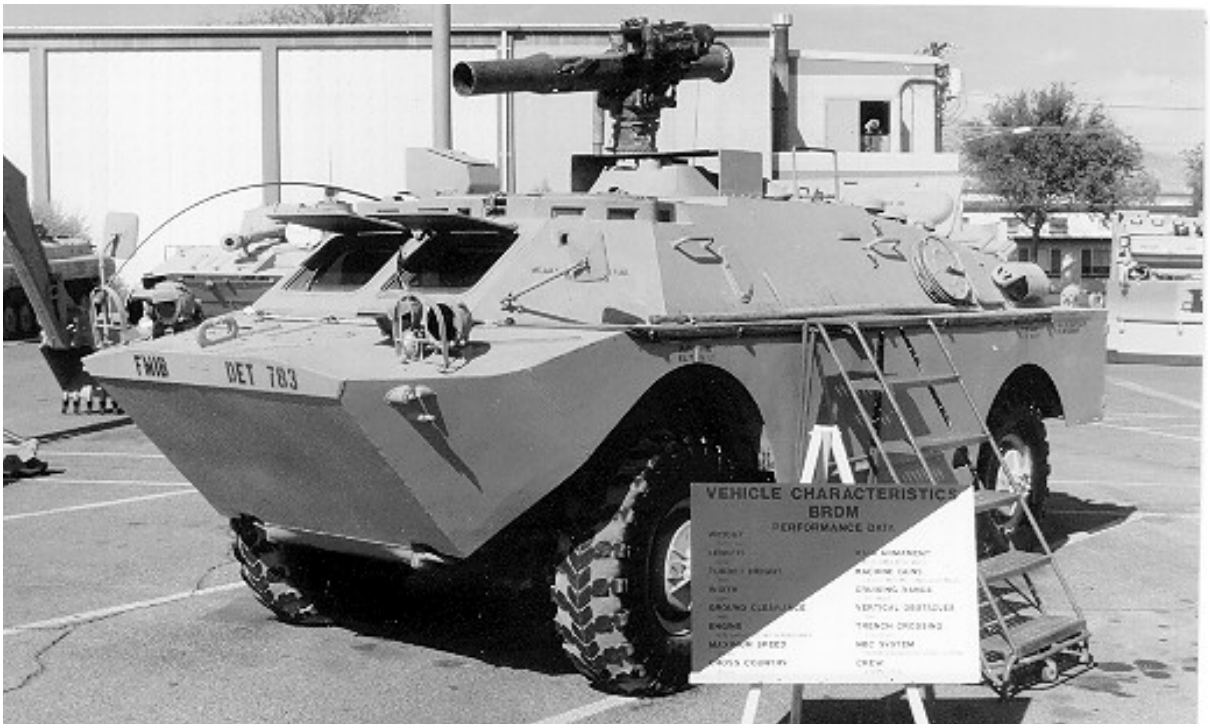
ARMAMENT:

Weapon	Range	Kill Code
7.62mm MG	800m	27
SA-14 SAM	4000m	26

HOW TO KILL IT:

System	PK-FS	PK-LS	PK-RS	PK-R
TOW	100%	100%	100%	100%
M1 120mm	100	100	100	100
Dragon	100	100	100	100
Viper	90	90	90	90
M2 25mm	30	30		

BRDM-2 with AT-5



DESCRIPTION:

- **Actual BRDMs are sometimes used to insert DRTs.**
- **Part of Div or Rgt Recon.**
- **Instead of an AT-5, it has a small “frying pan” radar with a 14.5mm machine gun.**

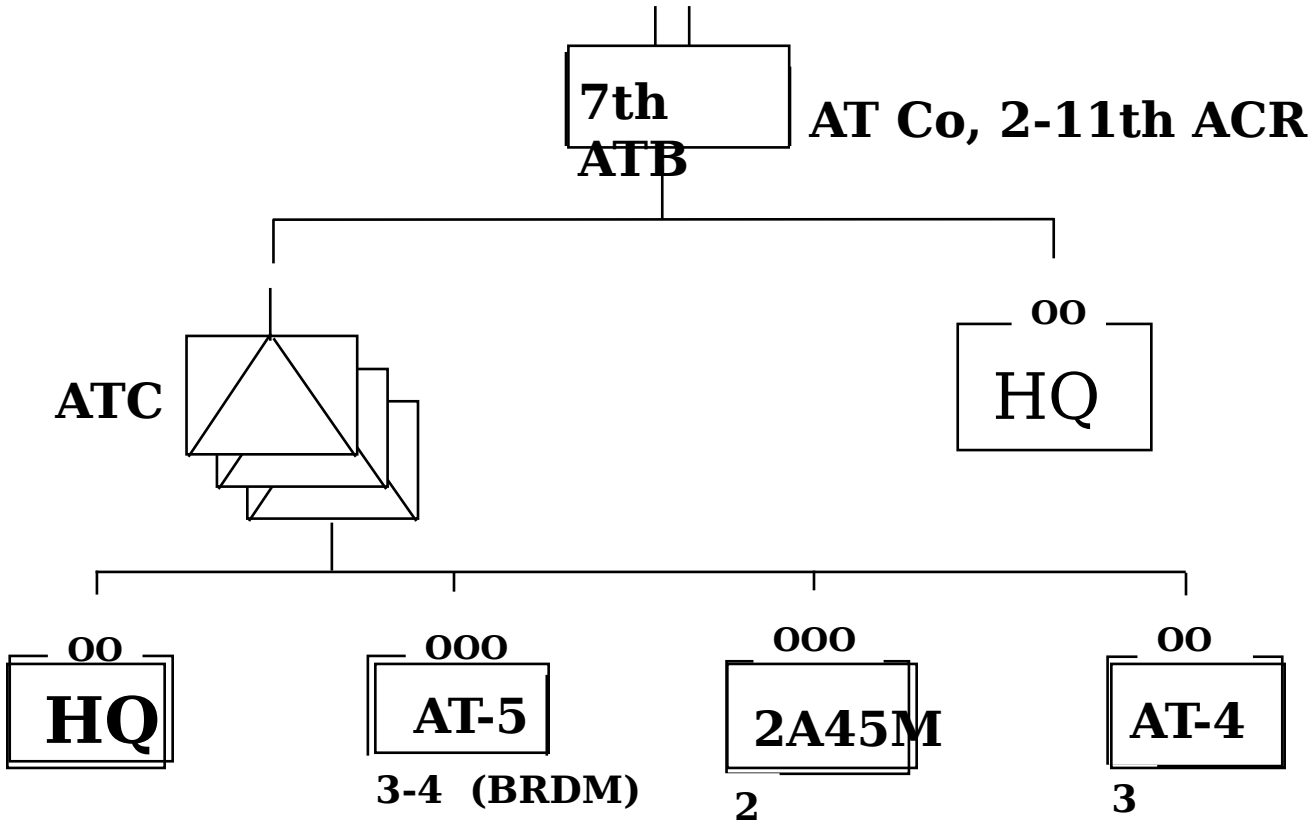
ARMAMENT:

Weapon	Range	Kill Code
14.5mm MG	800m	

KILL IT THE SAME WAY YOU KILL THE VISMOD BRDM-2

BONUS: Kill the BRDM, kill the DRTs inside.

7TH ANTI-TANK BATTALION



Equipment:

6 x 2A45M/SPRUT-B (MT-12)
9-12 x BRDM-2 AT-5 (TOW)
6-9 x Dismount AT-4s (TOW)
4 x BRDM-2 C2

Peculiarities:

Whereas a typical Heavy OPFOR ATB ofte
operates as a separate formation, the 7th
parcels out system-mixed ATC's to suppor
individual MRB's.
Also, the ATB does not have enough perso
to field all systems simultaneously.

VISMOD AT-5 BRDM

DESCRIPTION:

- **AT-5 ATGM launcher next to gunner's hatch.**
- **Otherwise same as VISMOD BRDM-2.**

ARMAMENT:

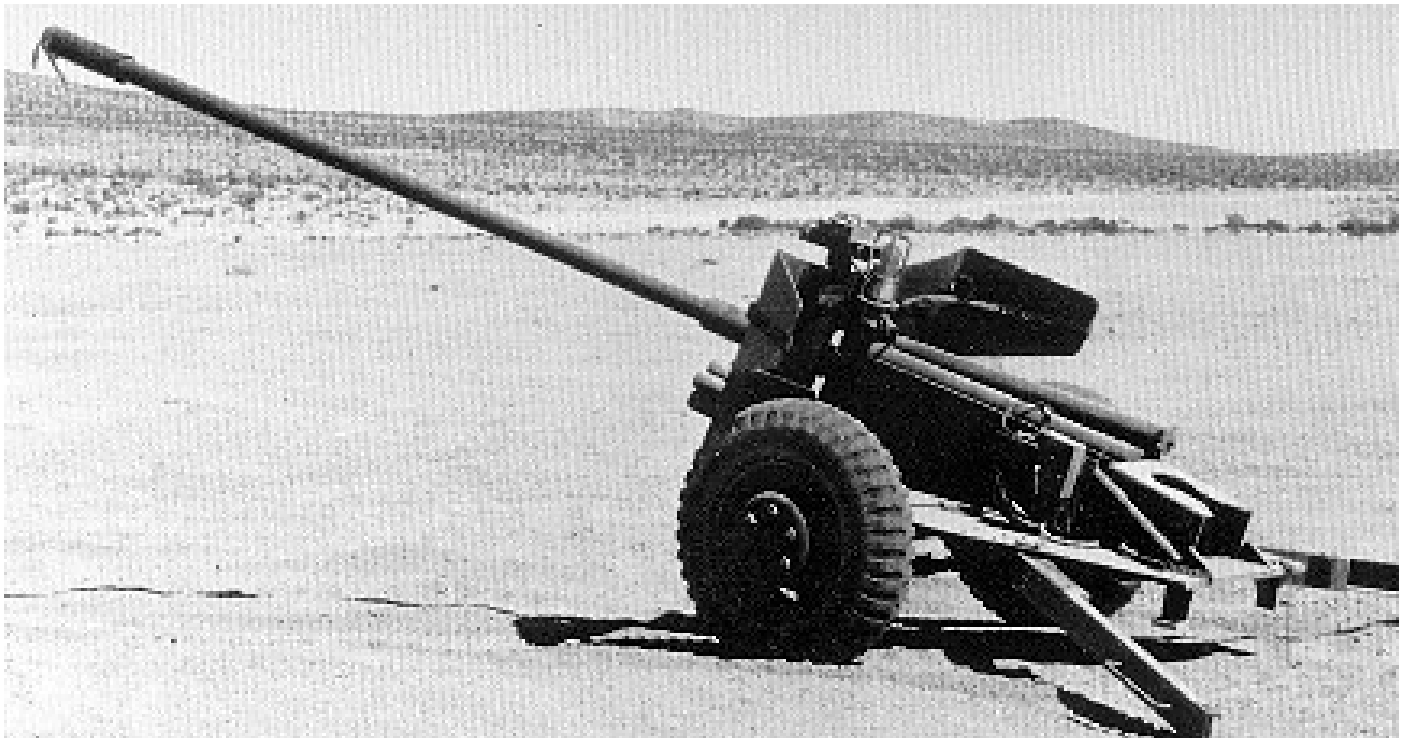
Weapon	Range	Kill Code
AT-5	3750m	08
12.7mm MG	2000m	27

KILL IT THE SAME WAY YOU KILL THE BRDM-2

Real AT-5

Real

SPRUT-B/2A45M



DESCRIPTION:

- **125mm Anti-Tank gun (same as the T80).**
- **Towed by a VISMOD BRDM or MTLB.**

ARMAMENT:

Weapon	Range
Kill Code	
125mm gun	2500m

HOW TO KILL IT:

System of Kill	Probability
M1 120mm	98%
TOW	98
Dragon	70
Viper	60
M2 25mm	23

MTL

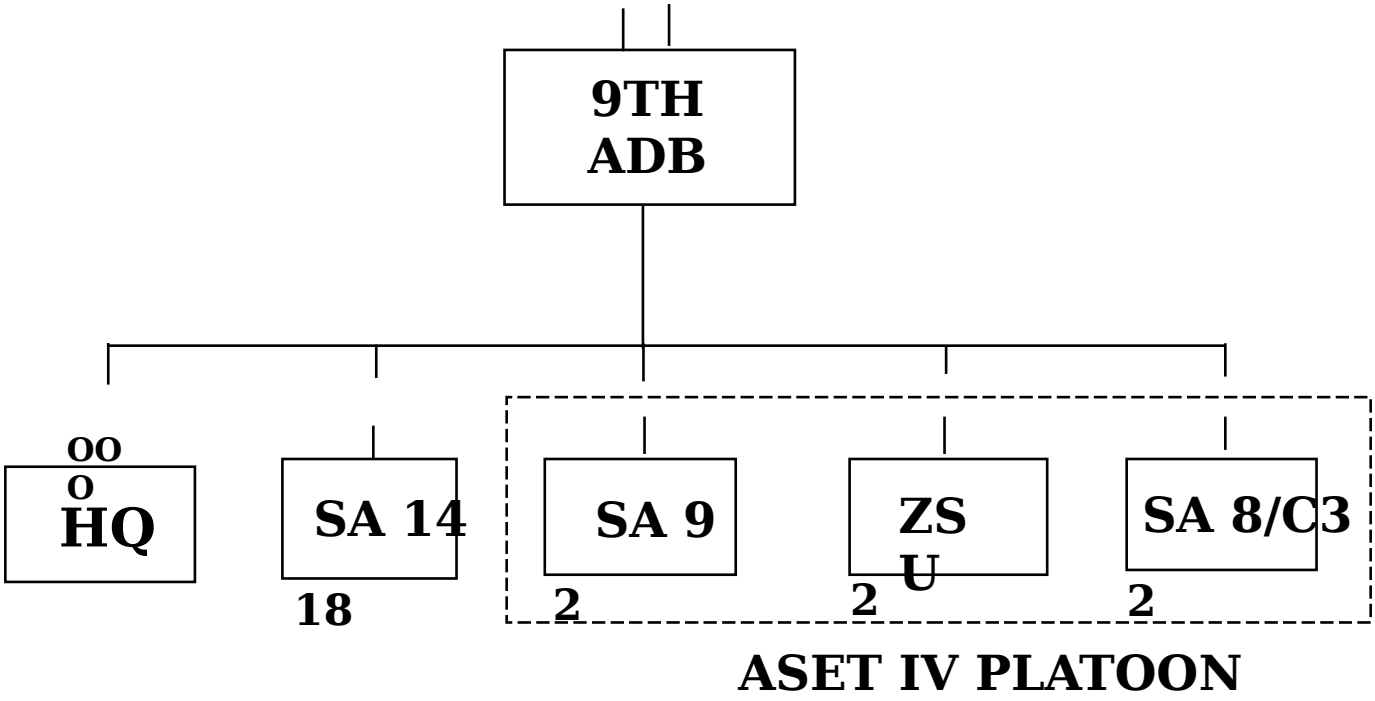
DESCRIPTION:

- **Tows the 2A45M.**
- **No MILES, no armament.**
- **Used primarily in the defense.**

HOW TO KILL IT:

System	Probability of Kill
M1 120mm	98%
TOW	98
Dragon	70
Viper	60
M2 25mm	23

9TH AIR DEFENSE BATTALION



EQUIPMENT:
2 x ZSU 23-4
2 x SA-9/2 x SA-8 MISSILE LAUNCHERS (6 doctrinally)
18 x SA-14 MAN-PORTABLE MISSILE LAUNCHERS (12 portrayed by STINGER MILES, the remainder by manually assessed green star cluster attacks)

PECULIARITIES:
Dueto personnel constraints the ADB cannot portray all systems doctrinally present in an ADB. It can also not portray more than one suite of ASET IV, thus presenting less than the total number of desired systems. No physical vismods of mounted systems exist but are replicated by ASET IV.

ASET IV
SA-8

DESCRIPTION:

- **HMMWV chassis.**
- **Most powerful OPFOR ADA system.**
- **24 km radar range, radar looks like a “tootsie roll”.**

ARMAMENT:

Weapon	Range	Kill Code
SA-8 RFSAM	12km	

The good news is it can’t shoot back at ground targets.

ASET IV
SA-9

DESCRIPTION:

- **Same as SA-8, but no radar.**

ARMAMENT:

Weapon	Range	Kill Code
SA-9 IRSAM	8 km	25

ASET IV
ZSU23-4

DESCRIPTION:

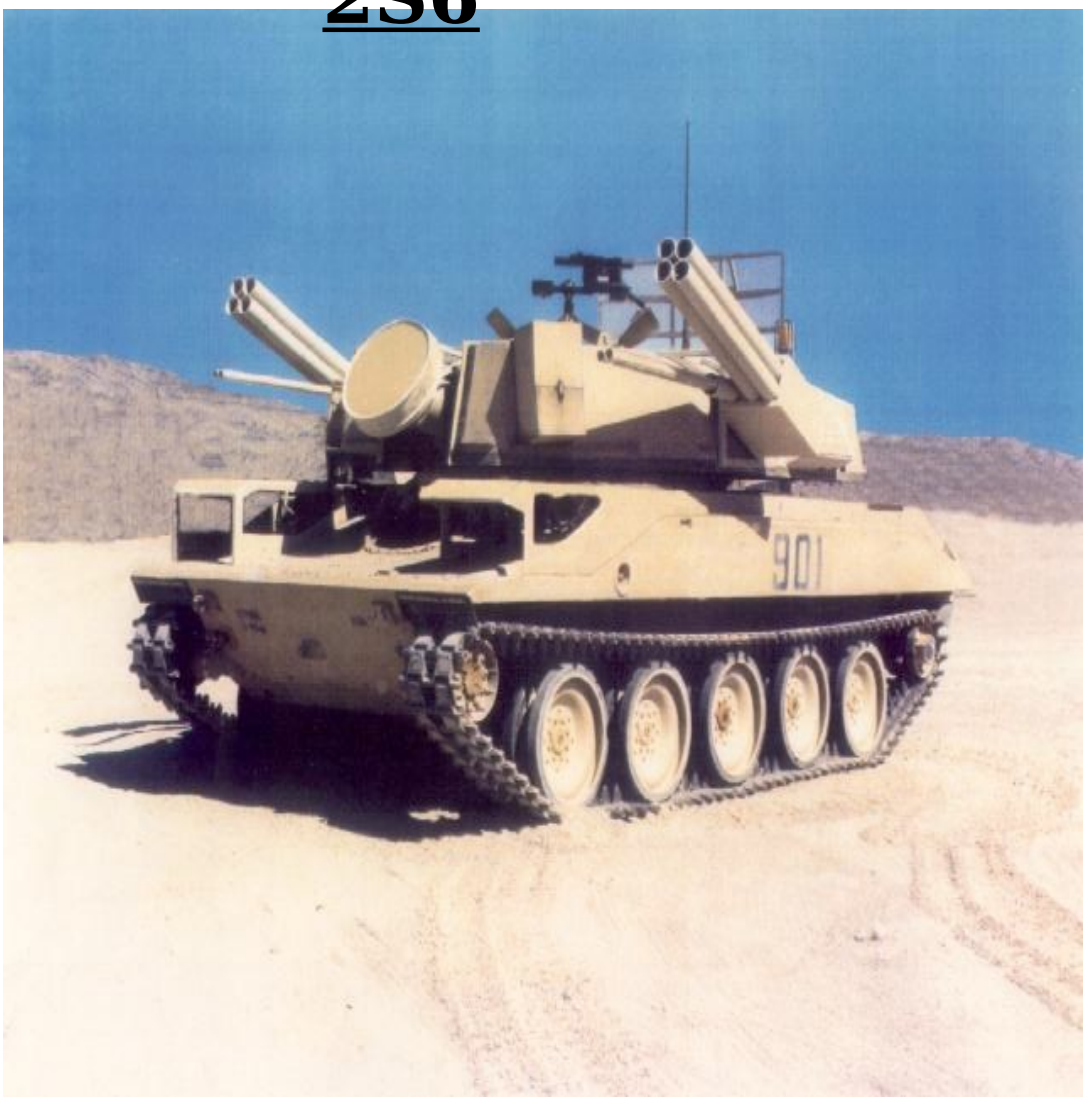
- **Similar to SA-8/9, but radar looks like “Johnny 5” from *Short Circuit.***
- **20 km radar range.**
- **Limited shoot-on-the-move capability.**
- **Has largely replaced the VISMOD ZSU 23-4 on the next page.**

ARMAMENT:

Weapon	Range	Kill Code
23mm cannon	2500m	22

903

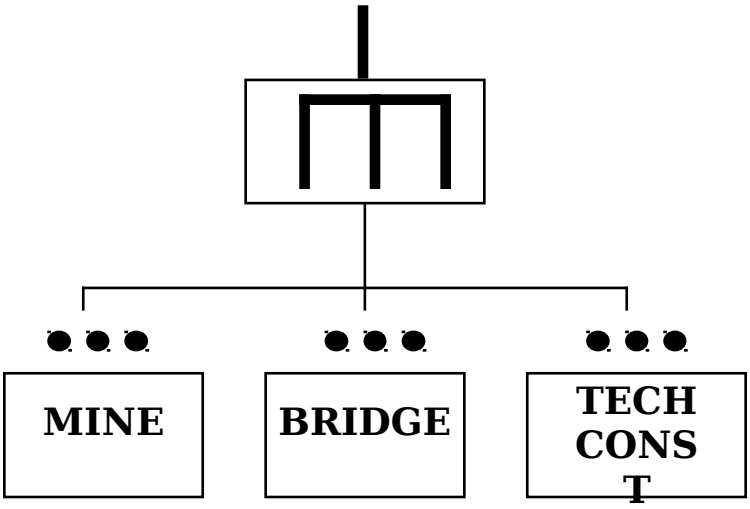
VISMOD 2S6



DESCRIPTION:

- **M551 chassis.**
- **Same MILES armament as ZSU 23-4.**
- **Can engage ground targets.**
- **Largely replaced by ASET IV.**

58th Engineers



Equipment	NTC	Replicates
ACE	7	BAT-2 Dozer
BMP-1 (M113)	2	MOD and MSD (w/trailer incl. GMZ
BRDM-2	2	BTR-60, 1 used as ERP
D7F Dozer	3	Tank/BMP Self Entr
SEE	4	PZM TMK Ditching Machine
Dump Trucks, Scoop Loaders		haul pickets, mines, and concertina in defense

UMZ Mine Laying System

MSD

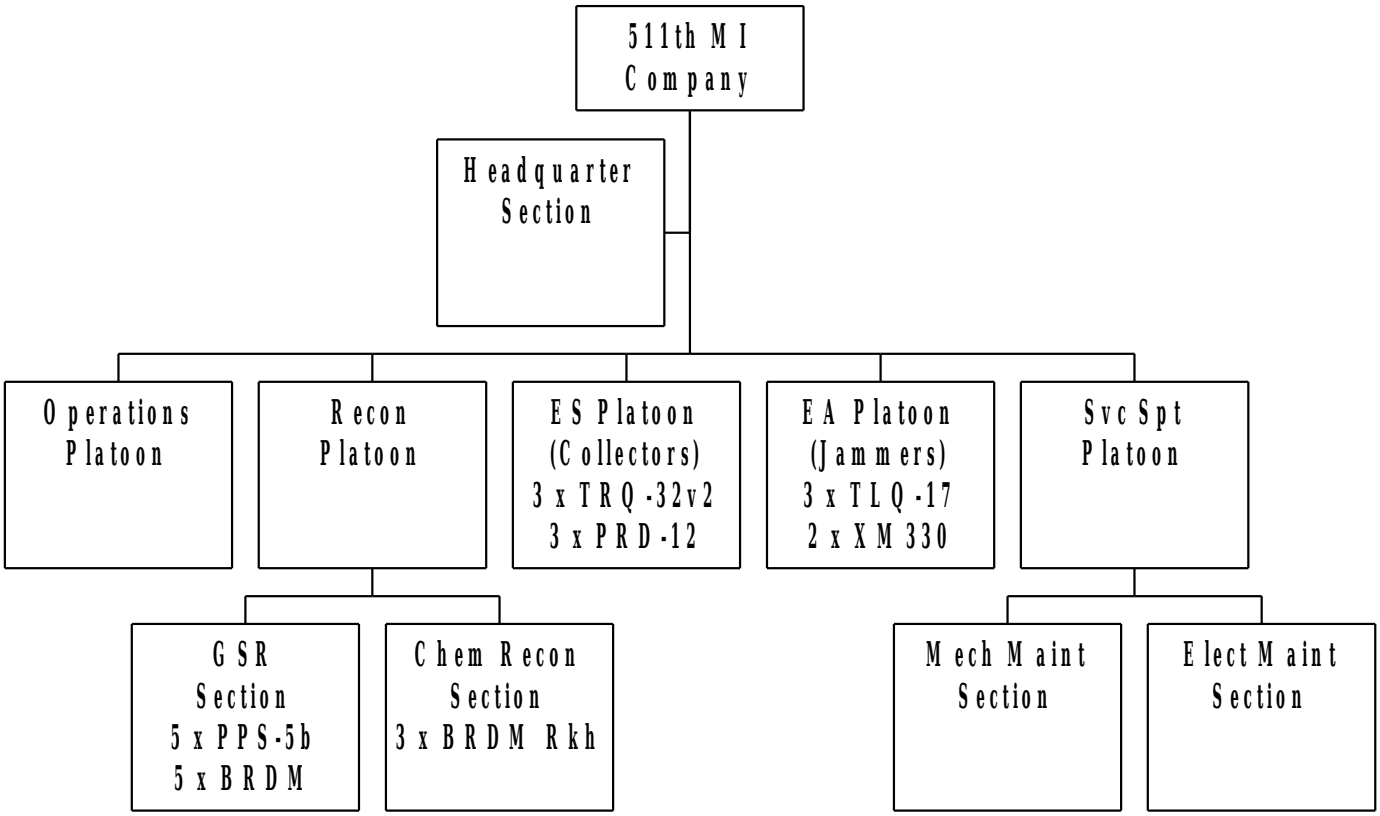
ARMORED COMBAT EXCAVATOR

SMALL EQUIPMENT
EXCAVATOR

D7G

MOD

511th MI Organization


511th MI Company
Headquarter Section
Operations Platoon
Recon Platoon
ES Platoon (Collectors) 3 x TRQ-32v2 3 x PRD-12
EA Platoon (Jammers) 3 x TLQ-17 2 x XM 330
Svc Spt Platoon
GSR Section 5 x PPS-5b 5 x BRDM
Chem Recon Section 3 x BRDM Rkh
Mech Maint Section
Elect Maint Section

Equipment and Peculiarities: Uses 2-3 soldier teams; 3 x TRQ/3 x TLQ for RGT ops, 2/2 for MRB ops.

Krasnovian Equipment Available

- **51 T-80 (1 x w/thermals and stabilization-**

  up to 30 by the July ‘97 rotation)
- **58 BMP-2**
- **62 BMP-1**
- **9 AT-5 BRDM-2**
- **4 Recon BRDMs**
- **20 M113 VISMOD BMPs**
- **2-4 Sorties per battle / SU-25 (portrayed by A10 or F16)**
- **4 MI-24 Hind E VISMOD UH-1s**
- **10 Mi-8 HIPs for TF Angel (non-VISMOD UH-1s)**
- **10 MTLBs**
- **6 VISMOD SPRUT-B/2A45M (4 actual systems available through C/203 MI)**
- **48 SA14/16 (Some Stinger MILES, some green pyrotechnics)**

SECTION II

OPERATIONS

TYPICAL KRASNOVIAN MISSIONS

- **OFFENSE**
  - » ATTACK DEFENDING ENEMY (MRR)
  - » MEETING ENGAGEMENT (MRR)
- **DEFENSE**
  - » MRB DEFENSE (MRB +)
  - » SECURITY ZONE (MRC +)

OPFOR FRONTAGES & DEPTHS / SPEED TO DISTANCE CONVERSION

SPEED TO DISTANCE CONVERSION

MPH / KPH	5/8.3	10/16.7	12.7/20	15/25	20/33	25/41.6	30/50
DISTANCE IN Km	TIME IN MINUTES						
1	7	3.6	3	2.4	1.8	1.4	1.2
5	36	18	15	12	9	7	6
10	72	36	30	24	18	14	12
15	108	54	45	36	27	21	18
20	145	72	60	48	36	29	24
25	181	90	75	60	45	36	30
30	217	108	90	72	64	43	36

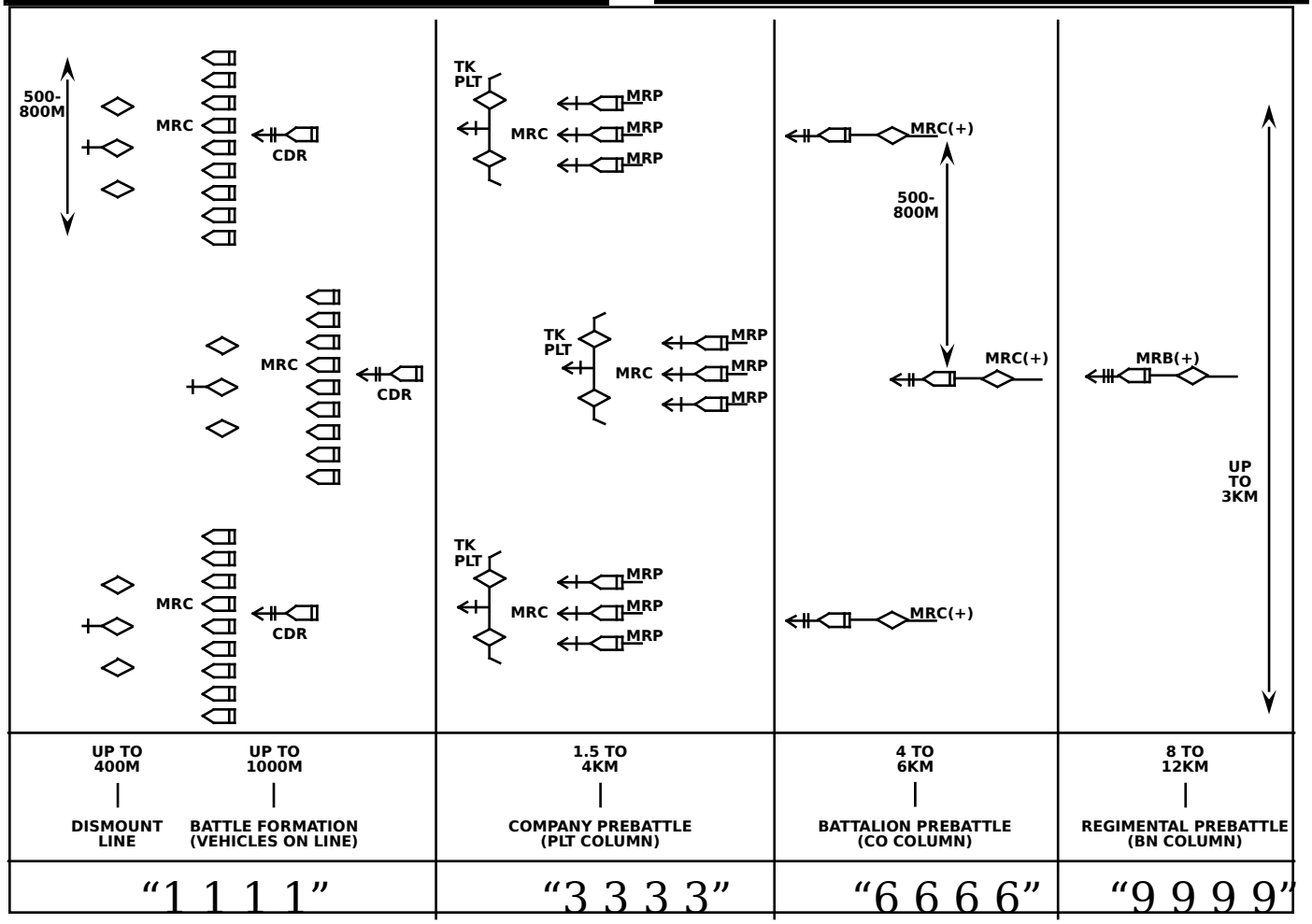
FRONTAGES & DEPTHS

OFFENSE

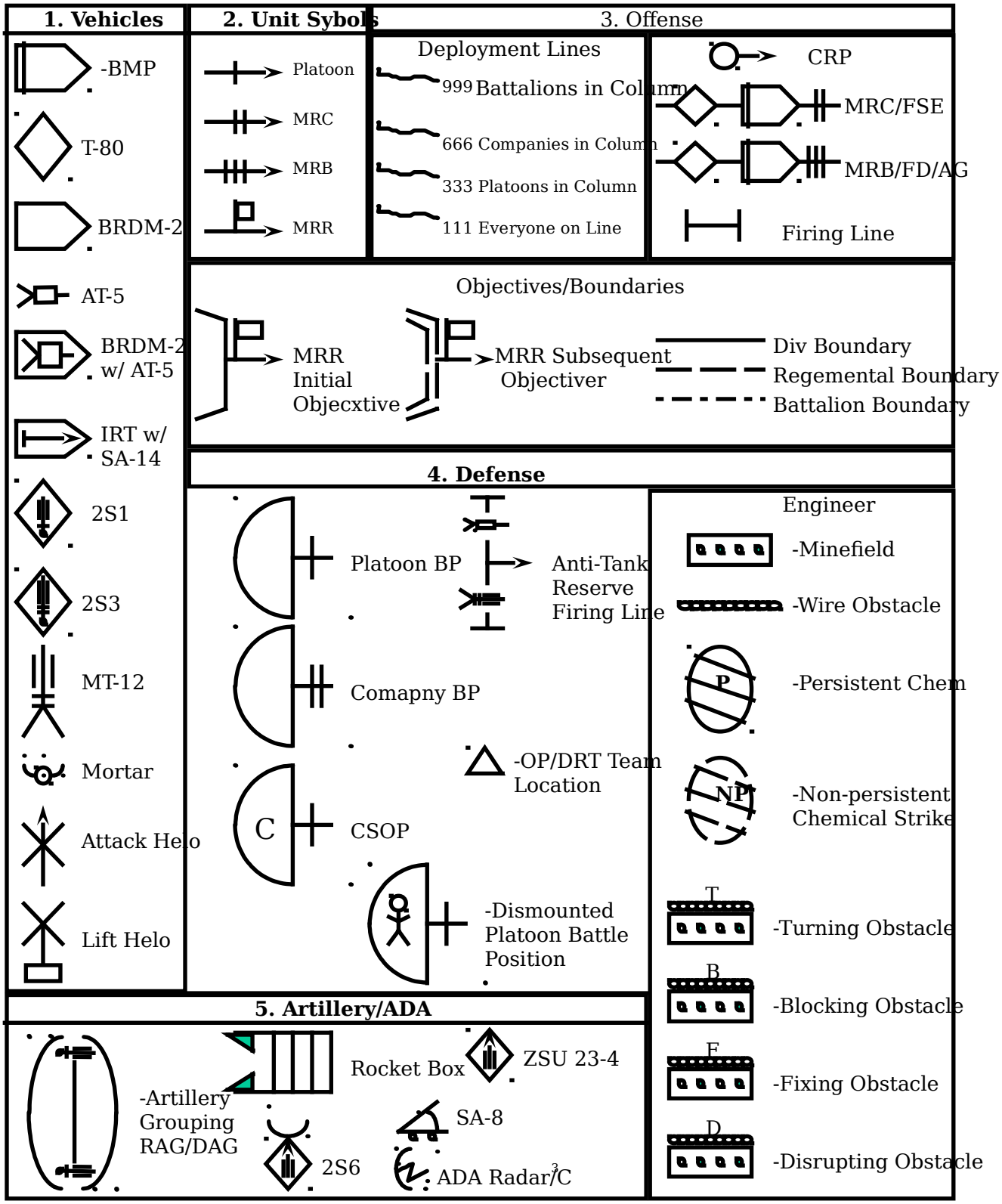
ECHELON	FRONTAGE	PREBATTLE	DEPTH
REGIMENT	3-8 Km	To Battalions: 8-12 Km	5-15 Km
BATTALION	2-3 Km	To Companies: 4-6 Km	1-3 Km
COMPANY	500-800 m	To Platoons: 1.5-4 Km	
PLATOON	100-200 m	To Squads: 300-1000 m	
VEHICLE	150 m		

DEFENSE

ECHELON	FRONTAGE	EXTENDED FRONTAGE	DEPTH
REGIMENT	10-15 Km	15 (+) Km	7-10 Km
BATTALION	3-5 Km	7 (+) Km	Up to 2 Km
COMPANY	Up to 1.5 Km	Up to 3 Km	Up to 500 m
PLATOON	Up to 400 m	Up to 1 Km	
VEHICLE	150 m		



OPFOR SITEMP SYMBOLS



Offensive Battles

- **Regimental Attacks:**

  - Attack Against a Defending Enemy

  - Meeting Engagement

OPFOR OFFENSIVE TIME-LINE

TIME	WHAT	WHY	PHASES OF FIRE
H-36 - H-30 (COM +6 HRS)	**DIV Recon LD** 4 x BMP, 3 x T-80 (Possibly), 4 x BRDM-2 6 x DRT, 2 x BRDM-GSR, 3 x RDF 3 x JAMMER	Observation, ambush, look for penetration points thru sector, and to drop of DRTs.	NONE
H-25 - H-10	**DRTs Actively Reporting**	Determine the location of BLUEFOR Forces and Obstacles. Identify rehearsals of repositioning forces.	NONE
H-15	**TF Destroyer or Angel** 100 dismounts / AT-5 / SA-14 / SAPPERS (Possibly)	Obstacle reduction, harassing fires, assist FD in securing key terrain, neutralize key BLUEFOR units (reserves, etc.). Normally used at the point of penetration.	2S7s prep LZ for TF Angel
H-12 - H-2	**REGT Recon LD** 4 x BMP, 4 x BRDM-2, 2 x BRDM-2rkh 1 x Engr Recon	Ambush, raid, obstacle overlay, probe to confirm BLUEFOR SITTEMP	I = FS for FWD MVMT Conventional P CHEM - 1 Target FASCAM - 2 Targets - Shape the battlefield - Protect Advancing Columns 2S7s Prep LZ for TF Angel
H-9 - H	**TF Destroyer or Angel** 100 dismounts / AT-5 / SA-14 / SAPPERS (Possibly)	Obstacle reduction, harassing fires, assist FD in securing key terrain, neutralize key BLUEFOR units (reserves, etc.)	
H Hour	****Combat Recon Patrol (CRP) (1 per MRB)** 3 x BMP-1(P), 1 x BRDM-2rkh, 1 x BTR (ENGR)	10 km forward to confirm/verify BLUEFOR positions to the immediate front; will bypass or dismount as required	II = PREP for ATK Conventionl NP Chem - Up to 6 - Begins as MRR LDs - To suppress and/or destroy BLUEFOR - Protect during deploymnt into Prebattle / Battle Formations
H+10 MIN	****Forward Security Patrol** 3 x BMP-1(P)	Deployed based on METT-T; comes from and provides security for the FSE	
H+10 - 30 MIN 1-10 Km behind CRP 20 KPH	****Forward Security Element (FSE)** 9 x BMP-1(P), 3 x T-80, 3 x BRDM-2 (AT-5) 6 x 2S1, 8 x M120 (120mm Mortars) 2 x BTR-60 (ENGR), 2 x BRDM-2rkh	Advance at maximum speed to engage and fix BLUEFOR, develop the situation, or hold terrain until the main body arrives	
H+15 MIN - H+1 1-10 Km behind FSE 20 KPH	****Advance Guard Main Body (AGMB)** 30 x BMP-1(P), 7 x T-80, 12 x 2S1, 6 x BRDM-2 (AT-5), 4 x 2S6 (As Required)	To permit the continuation of the march of the regt main body. Will destroy or fix all opposition to allow regt main body to bypass or conduct a flanking attack. Artillery and tanks march forward for early deployment.	III = Fire SUPT for ATK - 10 Minutes from BLUEFOR BPs - Fires shift in bands progressively deeper into the BLUEFOR BPs - Neutralize enemy defenses
H+30 - H+1.5 5-20 Km behind AGMB 20 KPH	**MRR Main Body** 84 x BMP-1(P), 21 x T-80, 18 x 2S3, 16 x M120 (120mm Mortars), 4 x SA-14, 4 x 2S6,	Maneuvers to destroy forces that the Advance Guard can't. Contains 2/3 of the MRR's combat power.	IV = Fire Accompaniment - Chem / FASCAM not likely - After Penetration - Prevent reserve CATK - Supports 2d echelon ATK

** CRP, FSE, Forward Security Patrol, and the AGMB is only used if the OPFOR INTEL is **NOT** good.

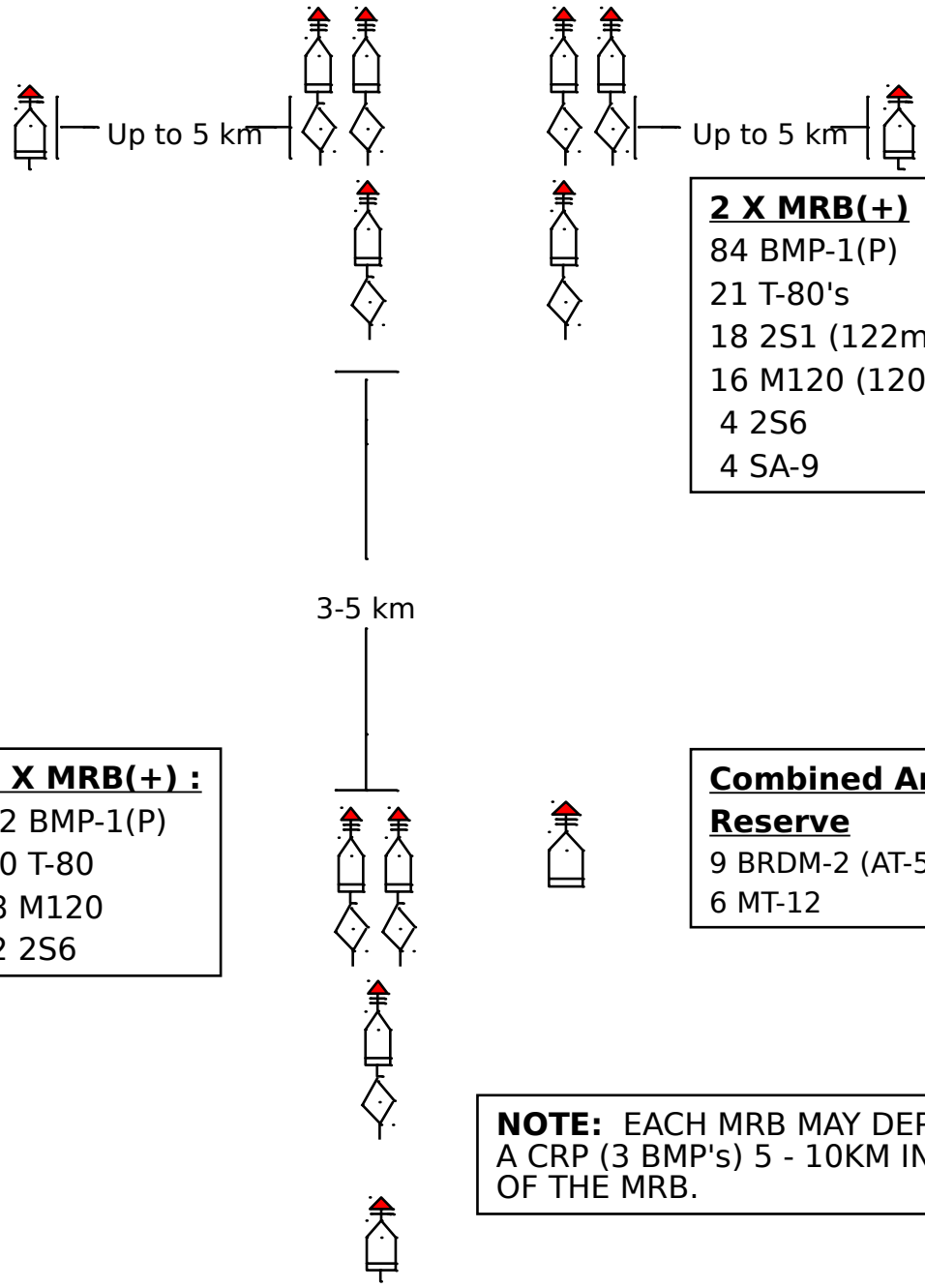
NOTE #1: If the OPFOR INTEL **IS** Good, the MRR main body will attack with 2 x MRBs in the 1st echelon and 1 x MRB in the 2nd echelon. Each lead MRB may put a Forward Security Patrol in Front.

NOTE #2: Any OPFOR echelon can be assigned to conduct an enveloping mission (See Doctrinal Template #1: MRR ATTACK).

DOCTRINAL TEMPLATE #1
MRR ATTACK (2 UP, 1 BACK)

- The deliberate MRR attack with **2 MRBs up and 1 MRB back is the preferred method of attack** for the enemy. When the enemy forces conduct successful reconnaissance and know the locations of the friendly defending units, they attack with 2 MRBs in the first echelon.
- **DIVISION RECON** - Consists of 4 x BMP, 4 x BRDM, 3 x GSR, 3 x DF Systems, and 3 x Jammers; deploys 30-36 hours prior to the MRR's attack. Conducts 1-3 vehicle patrols to division objective and then exits sector.
  BMPs follow behind BRDMs. BRDMs drop off DRTs on their way through blue sector. Radio Direction Finding Assets from the Radio / Radar Reconnaissance Company will be active during this phase. Div recon may also be reinforced with a tank plt to assist the BMPs and BRDMs during this phase.
- **REGT RECON** - Consists of 4 x BMP, 4 x BRDM, 3 x BRDM-rkh, 1x GSR; deploys 8-12 hours prior to the MRR's attack. Regt recon usually crosses the LD at EENT prior to the attack and
  infiltrates along the main avenue of approach. Regt recon attempts to confirm the sit temp of the regimental S2.
- **CRP** - Usually an MRP; augmented with chemical and engineer assets. Recons flanks and avenues of approach into the friendly sector. Each 1st echelon MRB may deploy a CRP.
- **REGIMENTAL 1ST ECHELON** - Two MRBs deploy on a 3-4 KM front. The units normally deploy into smaller march columns at the following distances from the BLUEFOR forward defenses:
  - 8 to 12 kilometers in battalion columns
  - 4 to 6 kilometers in company columns
  - 1.5 to 4 kilometers in platoon columns
  - The regiment assumes battle formation (platoons on line) before reaching a designated line of attack about 300 to 1000 meters from the forward edge of the BLUEFOR's defense. The tank companies of the MRBs usually lead the attack. When the MRBs have penetrated BLUEFOR's defense, they widen the point of penetration for exploitaiton by the second echelon.
- **REGIMENTAL 2ND ECHELON** - One MRB along with the AT Bn. The MRB follows the first echelon and exploits the success of the 1st echelon forces.

DOCTRINAL TEMPLATE #1
MRR ATTACK (2 UP, 1 BACK)
(CONTINUED)



2 X MRB(+)
84 BMP-1(P)
21 T-80's
18 2S1 (122mm)
16 M120 (120mm Mortars)
4 2S6
4 SA-9

1 X MRB(+) :
42 BMP-1(P)
10 T-80
8 M120
2 2S6

Combined Arms Reserve
9 BRDM-2 (AT-5)
6 MT-12

NOTE: EACH MRB MAY DEPLOY A CRP (3 BMP's) 5 - 10KM IN FRONT OF THE MRB.

DOCTRINAL TEMPLATE #2
MRR ATTACK

- **DIVISION RECON** - Consists of 4 x BMP, 4 x BRDM, 3 x GSR, 3 x DF Systems, and 3 x VHF Jammers; deploys 30-36 hours prior to the MRR's attack. Conducts 1-3 vehicle patrols to division objective and then exits sector. BMPs follow behind BRDMs. BRDMs drop off Dismounted Recon Teams (DRT) on their way through the blue sector. Division Reconnaissance may be reinforced with a tank platoon to assist the BMPs and BRDMs. 2 x GSRs and 3 x DF Systems will attempt to locate BLUEFOR Reconnaissance and Counter-Reconnaissance Forces. The 3 x VHF Jammers will focus on the BLUEFOR fire support nets and the Counter-Reconnaissance Command and Control Nets.

- **REGT RECON** - Consists of 4 x BMP, 4 x BRDM, and 1 x BRDM-rkh; deploys 8-12 hours prior to the MRR's attack. Regimental Reconnaissance usually crosses the LD at EENT, prior to the attack, and infiltrates along the main avenue of approach. Regimental Reconnaissance attempts to confirm the SIT TEMP of the Regimental S2.

- **CRP** - Usually an MRP(+); augmented with chemical and engineer assets and possibly tanks. Recons flanks along with primary and alternate routes. The advance guard battalion CDR may employ as many as three CRPs for one mission. The CRP will call for fire and adjust fires on enemy forces. It will avoids contact and fight only in self defense or on the order of the MRB commander.

- **FSP** - Usually a platoon or squad. Primary function is to provide march security for the FSE. It marches along the primary route of the advance guard.

- **FSE** - Usually an MRC(-); augmented with a tank platoon, 2S1 howitzer battery, engineer and ADA assests. Security for its parent battalion is its primary mission. Using maneuver and firepower, the FSE attacks from the march and destroys enemy forces it encounters. If it cannot destroy the forces, it seizes advantageous terrain, sets up a firing line, and fixes the enemy force until commitment of the advance guard main body. Staying Power = 1 Hour.

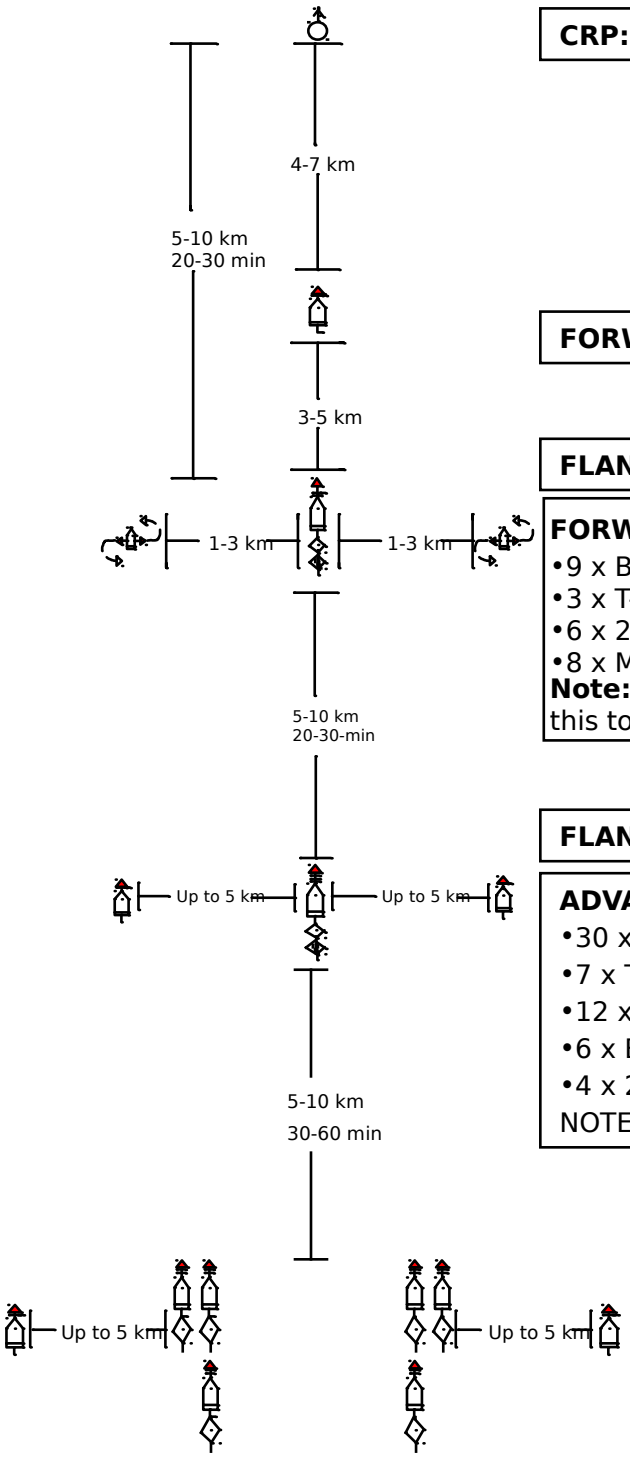
- **ADVANCE GUARD** - Usually an MRB(-); augmented with a Tk Co(-), and 2S1 How Bn(-). The mission of the advance guard is to permit the continuation of the march by eliminating enemy opposition or fixing enemy forces to allow the regimental main body to bypass or conduct a flanking attack. Artillery and tanks usually march forward in the column to allow their early deployment. Staying Power = 2-3 Hours.

- **REGIMENTAL MAIN BODY** - Provides 2/3 of the combat power for the MRR. It maneuvers to destroy enemy forces that the advance guard does not. The composition of the main body may vary with assets assigned from division, army, or front. The regimental strike sector is 2-4 km wide.

- **FLANK SECURITY** - An MRC or MRP which provides march security to the flank of the main body.

- **REAR SECURITY** - Usually an MRP unless there is a known threat to the rear.

DOCTRINAL TEMPLATE #2
MRR ATTACK (CONTINUED)



CRP: 3 X BMP-1(P), 1 X BRDM-2rkh, 1 X BTR (ENG)

FORWARD SECURITY PATROL: 3 X BMP-1(P)

FLANK SECURITY: 1 BMP-1(P) or T-80

FORWARD SECURITY ELEMENT (FSE):

- 9 x BMP-1(P)
- 3 x T-80's
- 6 x 2S1
- 8 x M120 (120mm Mortars)
- 3 x BRDM-2 (AT-5)
- 2 x BTR-60 (ENG)
- 2 x BRDM-2rkh

Note: Forward Security Patrol and Flank Security comes from this total strength.

FLANK SECURITY: 3 x BMP-1(P)

ADVANCE GUARD MRB(-):

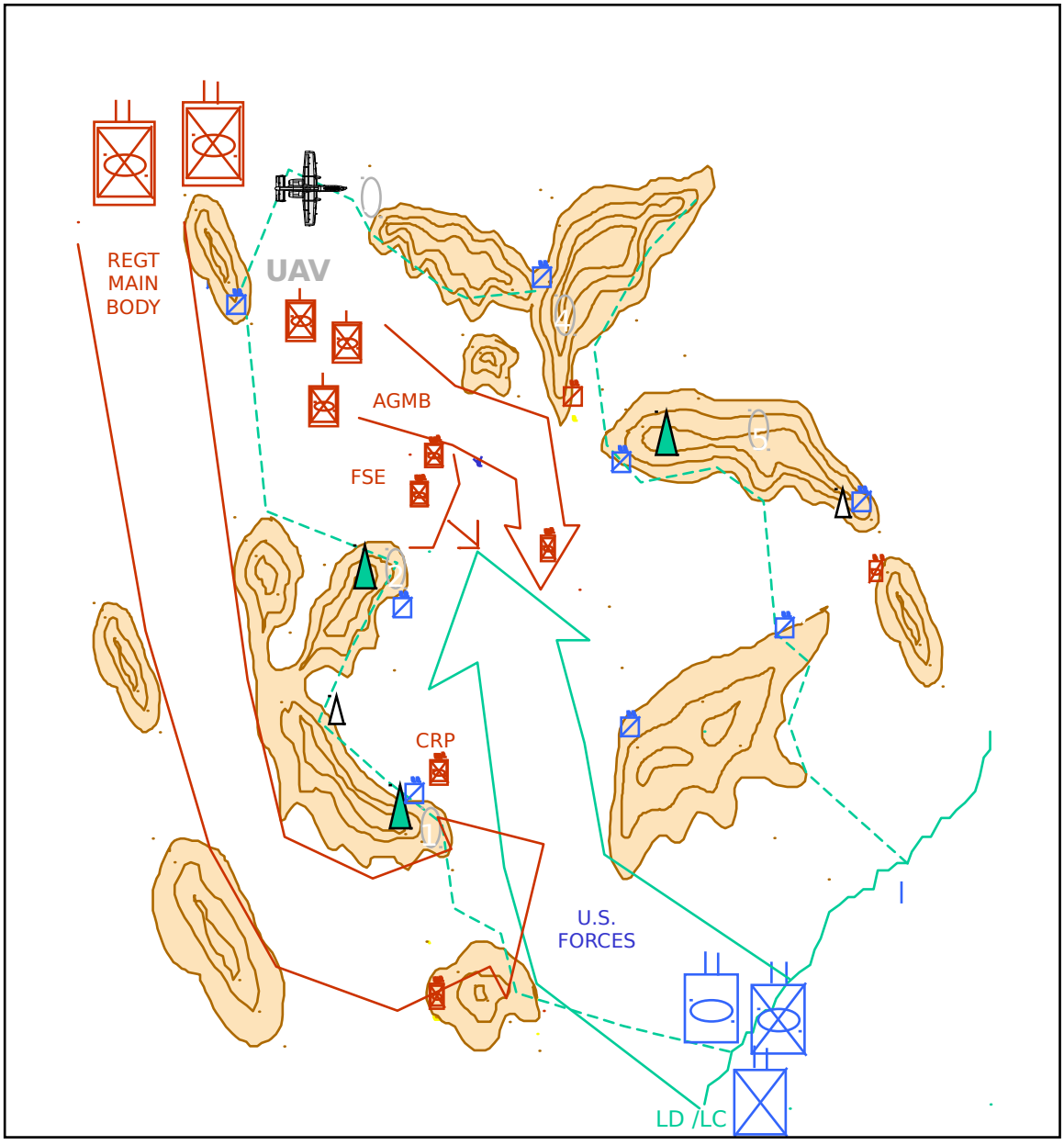
- 30 x BMP-1(P)
- 7 x T-80's
- 12 x 2S1
- 6 x BRDM-2 (AT-5)
- 4 x 2S6 (4)

NOTE: Flank Security Comes from the ADV Guard total stren

REGIMENTAL MAIN BODY (2 X MRB(+)):

- 84 x BMP-1(P)
- 21 x T-80's
- 18 x 2S3 (152mm)
- 16 x M120 (120mm Mortars)
- 4 x 2S6(4)
- 4 x SA-13

DOCTRINAL TEMPLATE #2
MRR ATTACK (CONTINUED)
"THE ENVELOPMENT"



NOTES:

1) The FSE will be in contact w/in 20 - 30 Min after initial contact by the CRP.

2) The AGMB will be in contact w/in 20 - 30 Min after contact by the FSE.

3) The REGT MB will be in contact w/in 30 - 60 Min after contact by the AGMB.

MRR IN THE ATTACK

FOUR PHASES

I. RECONNAISSANCE

II. SHAPING THE BATTLEFIELD

III. PENETRATION

IV. SECURING THE OBJECTIVE

RECONNAISSANCE PHASE

- MAJOR PLAYERS
  - DIV RECON
  - ELECTRONIC WARFARE
  - REGT RECON
  - RECON DET
- OTHER
  - ADA
  - RETRANS
  - MANEUVER
  - CAS

TIMELINE

NET 1700, D-2

- Regimental TOC assumes control of MRR elements

EENT, D-2

- **1 Company from Divisional Reconnaissance Battalion**
- 4 x BMP / 4 x BRDM /1 x GSR(BRDM) / 3 x R-90 (W/DTOC Apparatus) / 6 x DIV RECON TMS (DRTC)

Resumption of Battlefield Effects, D-2

- **Elements of Radio Electronic Combat Company**
- **Organization**:

  3 x Collector (TRQ-32) / 3 x Jammer (TLQ-17)
- **Mission**:

  Collectors - Intel Gathering/Direction Finding

  Jammers - Deny enemy useof EM spectrum, protect recon forces

EENT, D-1

- **Regimental Recon**
- **Organization**: 4 x BMP/ 4 x BRDM/ 1 x GSR / 3 x RKH / 1 x ERP

SHAPING THE BATTLE FIELD PHASE

- MAJOR PLAYERS
  - MANEUVER
    - TF ANGEL
    - TF DESTROYER
    - 5TH MANEUVER ELEMENT
    - FD/AG

- MAJOR PLAYERS
  - FIRES
    - SPECIAL MUNITIONS
    - AAG
    - DAG
    - RAG
    - MORTARS
    - CAS
    - EW

TIMELINE

NET EENT-3, D-1

- **Task Force Angel**

  May also be first light insertion after BMNT, D-day 100 INF, 3 x AT-5

- Out of sector insertion:

  60 x Dismounts, 2 x AT-5, must LZ in sector

- **AAG fires SEAD** 30 minutes prior to PZ, ends 30 minutes after last lift LZ

Following Reg Recon, D-1

- **TF Destroyer**
  - 100 x Aug INF / 3 x AT-5 / 1 x LNO / 1 x 120mm Mortar Battery
- **Will typically march after dismounting 3-5 KM from objective**

0200-0630, D-day

- **5th Maneuver Element**
- **Organization dictated by Combat Battle Instructions and tactical situation**
- **Mission typically FD or ED**

0530, D-day

- **PHASE I of Fire Support**
  - Support for movement forward
  - generally prior to Main Body crossing LD
  - Targets recon, fire support assets
  - May include SEAD for TF Angel

0615, D-day

- **CRP crosses LD**

TIMELINE, continued

0630, D-day

- Typically when the TAC /Command Group moves out and assumes control of MRR
- TOC assumes essentially admin function

0700, D-day

- **FSE crosses LD**
- **Phase II of Fire Support**
  - Preparation for attack
  - Targets C2, forward maneuver elements on broad front
  - DAG primary firer (RAG moving)
- **Special Munitions**
  - -- Persistent (1)
  - -- Non-persistent (6)
  - -- Smoke
  - -- FASCAM (2)

0715, D-day

- **Forward Detachment or Advance Guard**
- **Organization**
  - 10(+) T-80s / 29(+) BMPs / 3(+) AT-5s / MOD / MSD / ADA / 10 x VISMOD / 100 x Dismounts (TF Rampage)
  - Typically reinforced with a 3 / 8
- May use both FD/AG or only one
- **Engineer Assets may go with FD or AG**
- **May go with Regimental MB, or <u>ATB</u>**
- **2 x MSD**
  - Organization
    - 2 x ACE
    - 1 x VISMOD M-113
  - Mission - facilitate the unimpeded movement of the FD/AG

TIMELINE, continued

0715, D-day

- **2 x MOD**

  -- Organization

  1 x VISMOD M-113 w/Trailer

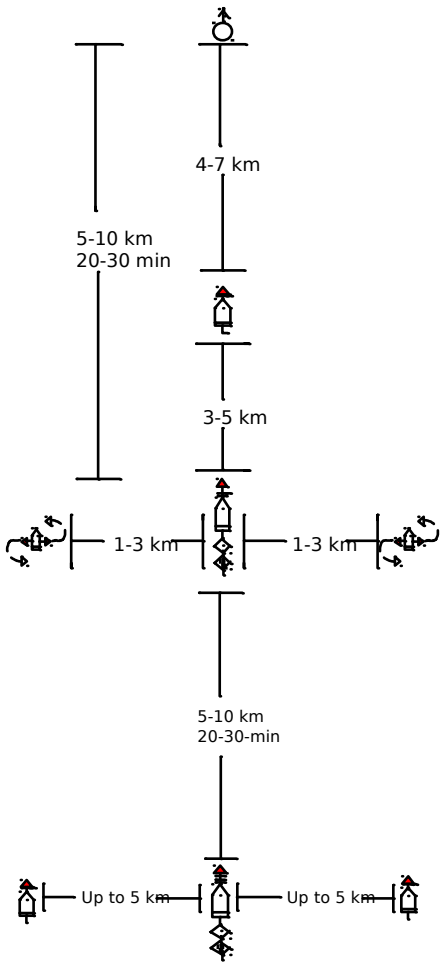
  Mission - emplaces mines in response to enemy action to decisively alter the battle

- **CRPs from main body LD**
  - Concurrent with AGMB
  - 45 min or 10 km
  - Follow AGMB if no FSE

DOCTRINAL TEMPLATE #3 FORWARD DETACHMENT IN THE ATTACK

- **FORWARD DETACHMENT:**
  - FDs are terrain oriented.
  - The FD works for the Cdr. The FD moves behind the reconnaissance, and attacks before the main body.
  - Terrain-oriented FD bypass BLUEFOR and move in zone to seize their terrain objective. They are not restricted to a designated route.
  - The FD seizes terrain objectives or destroys BLUEFOR to allow the fastest possible movement of the main body. The FD can secure flanks and block enemy avenues of approach.
  - The FD may be composed of a Tank Bn instead of an MRB. The Tk Bn may be reinforced with an MRC.
  - FD missions are often planned in conjunction with air assaults to link up the FD with the air assault infantry on the objective.
- **CRP** - Usually an MRP or tk plt, augmented with chem and eng recon assets. 1-3 CRPs may be employed by the MRR Cdr. Recons primary and alternate routes, and avoids contact. Staying Power = 1 Hour.
- **FSP** - Usually a platoon size element. It provides march security for the FSE.
- **FSE** - Usually an MRC(-) or Tk Co(-); augmented with a mortar battery, 2S1 howitzer battery, engineer and AT assets. Security for the FDMB is its primary mission. The FD FSE, depending on the size of BLUEFOR, bypasses BLUEFOR or fixes BLUEFOR to allow the main body to bypass. Staying Power = 2-3 Hours.
- **FDMB** - MRB(-) or Tank Co (-); augmented with a 2S1 howitzer Bn (-) and AT assets. The terrain oriented FD bypasses enemy forces to reach terrain objectives and then fights for terrain objectives, if necessary. The force oriented FD attacks and destroys the enemy forces it encounters.

DOCTRINAL TEMPLATE #3 FORWARD DETACHMENT IN THE ATTACK (CONTINUED)



CRP: 3 X BMP-1(P), 1 X BRDM-2rkh, 1 X BTR (ENG)

FORWARD SECURITY PATROL: 3 X BMP-1(P)

FLANK SECURITY: 1 BMP-1(P) or T-80

FORWARD SECURITY ELEMENT (FSE):

- 9 x BMP-1(P)
- 3 x T-80's
- 6 x 2S1
- 8 x M120 (120mm Mortars)
- 3 x BRDM-2 (AT-5)
- 2 x BTR-60 (ENG)
- 2 x BRDM-2rkh

Note: Forward Security Patrol and Flank Security comes from this total strength.

FLANK SECURITY: 3 x BMP-1(P)

FORWARD DETACHMENT (MRB (-)):

- 30 x BMP-1(P)
- 7 x T-80's
- 12 x 2S1
- 6 x BRDM-2 (AT-5)
- 4 x 2S6 (4)

NOTE: Flank Security Comes from the FD total strength.

PENETRATION PHASE

- MAJOR PLAYERS
  - MANEUVER
    - MAIN BODY (2 MRBS)
    - 2ND ECHELON
- MAJOR PLAYERS
  - FIRES
    - DAG
    - RAG
    - MORTARS
    - CAS
    - SOKOL
    - EW

TIMELINE

0745, D-day

- **Regimental Main Body LD**
  - May be 0700 if no FD/AG
  - RAG (notional) follows regimental main body
  - ED LDs with Regt MB (if used)

- **Organization**
  - 20 x T-80 / 58 x BMP / 6 x AT-5 / 4 x 2A45M / MOD / MSD / UMZ / ASET IV / 2 x 120mm MTR BTRY

- **Mission** - seizes key terrain and defeats enemy forces to facilitate the passage of the 2nd echelon

0800-0830, D-day

- **2nd echelon LDs**
  - 10 x T-80 / 4 x BMP

- **Mission** - exploits success of main body and seizes the MRR final objective
  - This may be the 5th ME, an ad hoc organization employed to improve force ratio
  - May include an additional MRB if no FD/AG

0830 D-day

- **Phase III of Fire Support**
  - Support of the attack at point of penetration
  - Targets C2, counter-battery, maneuver
  - RAG primary

SECURING THE OBJECTIVE

- MAJOR PLAYERS
  - MANEUVER
    - MAIN BODY
    - 2ND ECHELON
- MAJOR PLAYERS
  - FIRES
    - DAG
    - RAG
    - MORTARS
    - CAS
    - SOKOL
    - EW

TIMELIN
E

End of Penetration through to the Objective

- **Phase IV of Fire Support**
  - Fire accompaniment to the depth of the enemy defense
  - Targets reserves, counter-attack axis
- **Air Support (SOKOL)**
  -- **Organization** - 6-8 x SOKOL (Division asset)
  -- **Mission** - escort for TF Angel / flank security during the march / may support FD (if used)

(Approx) 1000-1200

- Securing the objective
- Remainder of main body and 2nd echelon secure the objective; may be ordered to complete destruction of enemy forces or assault CSS assets

- **Securing the objective fires**
  -- DAG, RAG, Mortars transition to Phase IV
  -- CAS augments if available
  -- SOKOL secures flanks or assists with follow on missions
  -- EW continues electronic attack against targets of opportunity

DOCTRINAL TEMPLATE #4
MRR MEETING ENGAGEMENT

- **DIVISION RECON** - Deploys 30-36 hours prior to the MRR's attack and will be in position. Consists of 4 x BMP, 4 x BRDM, 3 x GSR, 3 x DF Systems, and 3 x VHF Jammers. Conducts 1-3 vehicle patrols to division objective and then exits sector. BMPs follow behind BRDMs. BRDMs drop off Dismounted Recon Teams (DRT) on their way through the blue sector. Division Reconnaissance may be reinforced with a tank platoon to assist the BMPs and BRDMs. 2 x GSRs and 3 x DF Systems will attempt to locate BLUEFOR Reconnaissance and Counter-Reconnaissance Forces. The 3 x VHF Jammers will focus on the BLUEFOR fire support nets and the Counter-Reconnaissance Command and Control Nets.

- **REGT RECON** - Consists of 4 x BMP, 4 x BRDM, and 1 x BRDM-rkh; deploys 4-6 hours prior to the MRR's attack. Regimental Reconnaissance infiltrates along the main avenue of approach. Regimental Reconnaissance gains and maintains with the BLUEFOR advance company team and main body. It will report the enemy's disposition, routes, and location of reserves.

- **CRP** - Usually an MRP(+); augmented with chemical and engineer assets and possibly tanks. Recons flanks along with primary and alternate routes. The advance guard battalion CDR may employ as many as three CRPs for one mission. The CRP will call for fire and adjust fires on enemy forces. It will avoids contact and fight only in self defense or on the order of the MRB commander.

- **FSP** - Usually a platoon or squad. Primary function is to provide march security for the FSE. It marches along the primary route of the advance guard.

- **FSE** - Usually an MRC(-); augmented with a tank platoon, 2S1 howitzer battery, engineer and ADA assests. Security for its parent battalion is its primary mission. Using maneuver and firepower, the FSE attacks from the march and destroys enemy forces it encounters. If it cannot destroy the forces, it seizes advantageous terrain, sets up a firing line, and fixes the enemy force until commitment of the advance guard main body.

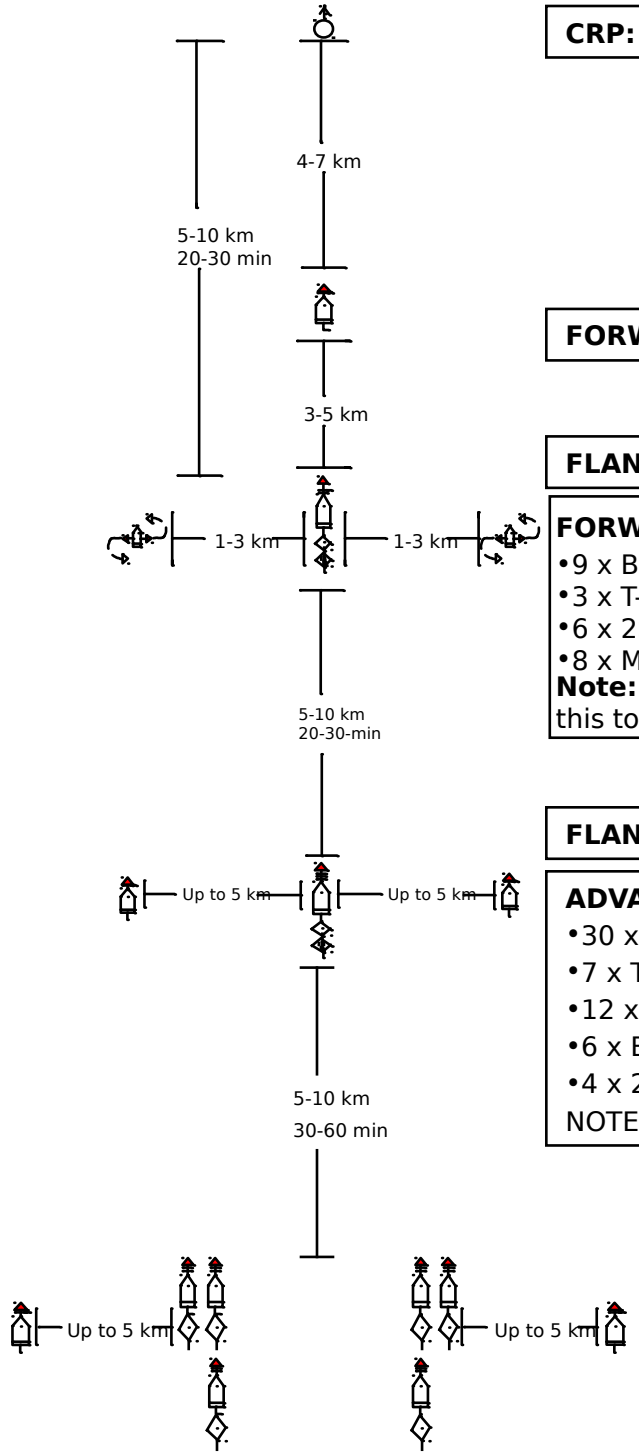
- **ADVANCE GUARD** - Usually an MRB(-); augmented with a Tk Co(-), and 2S1 How Bn(-). The mission of the advance guard is to permit the continuation of the march by eliminating enemy opposition or fixing enemy forces to allow the regimental main body to bypass or conduct a flanking attack. Artillery and tanks usually march forward in the column to allow their early deployment.

- **REGIMENTAL MAIN BODY** - Provides 2/3 of the combat power for the MRR. It maneuvers to destroy enemy forces that the advance guard does not. The composition of the main body may vary with assets assigned from division, army, or front. The regimental strike sector is 2-4 km wide.

- **FLANK SECURITY** - An MRC or MRP which provides march security to the flank of the main body.

- **REAR SECURITY** - Usually an MRP unless there is a known threat to the rear.

DOCTRINAL TEMPLATE #4
MRR MEETING ENGAGEMENT (CONTINUED)



CRP: 3 X BMP-1(P), 1 X BRDM-2rkh, 1 X BTR (ENG)

FORWARD SECURITY PATROL: 3 X BMP-1(P)

FLANK SECURITY: 1 BMP-1(P) or T-80

FORWARD SECURITY ELEMENT (FSE):

- 9 x BMP-1(P)
- 3 x T-80's
- 6 x 2S1
- 8 x M120 (120mm Mortars)
- 3 x BRDM-2 (AT-5)
- 2 x BTR-60 (ENG)
- 2 x BRDM-2rkh

Note: Forward Security Patrol and Flank Security comes from this total strength.

FLANK SECURITY: 3 x BMP-1(P)

ADVANCE GUARD MRB(-):

- 30 x BMP-1(P)
- 7 x T-80's
- 12 x 2S1
- 6 x BRDM-2 (AT-5)
- 4 x 2S6 (4)

NOTE: Flank Security Comes from the ADV Guard total stren

REGIMENTAL MAIN BODY (2 X MRB(+)):

- 84 x BMP-1(P)
- 21 x T-80's
- 18 x 2S3 (152mm)
- 16 x M120 (120mm Mortars)
- 4 x 2S6(4)
- 4 x SA-13

MRR MEETING ENGAGEMENT

- ESSENTIALLY CONDUCTED IN THE SAME FASHION AS THE MRR ATTACK. THE PENETRATION PHASE IS REPLACED WITH THE DESTRUCTION PHASE.

- THE FOCUS OF THE MAIN BODY IS TO DESTROY THE ATTACKING ENEMY FORCE

RECONNAISSANCE PHASE

- SIGNIFICANT DIFFERENCES
  - » MAY BE NO DIV RECON
  - » SIMULTANEOUS REGT RECON / BLUE RECON LDs (4hrs PRIOR TO LD)
  - » GENERALLY NO RDs (no time)

SHAPING THE BATTLEFIELD PHASE

- SIGNIFICANT DIFFERENCES
  - » TF DESTROYER LDs WITH REGIMENTAL RECON
  - » NO 5TH MANEUVER ELEMENT
  - » ADVANCE GUARD IS USUALLY EMPLOYED AS A FIXING FORCE TO FACILITATE THE MANEUVER OF THE MAIN BODY

DESTRUCTION PHASE

- SIGNIFICANT DIFFERENCES
  - » 2ND ECHELON HEAVIER (MAY CONSIST OF A FULL MRB)
  - » UNITS MANEUVER TO DESTROY ENEMY FORCES
- ADDITIONAL KEY POINT
  - » IF ENEMY IMMEDIATELY MOVES TO A HASTY DEFENSE THE COG OR BH6 MAY CHANGE THE REGIMENT'S MISSION FROM FORCE DESTRUCTION TO PENETRATION OR BYPASS

DEFENSIVE BATTLES

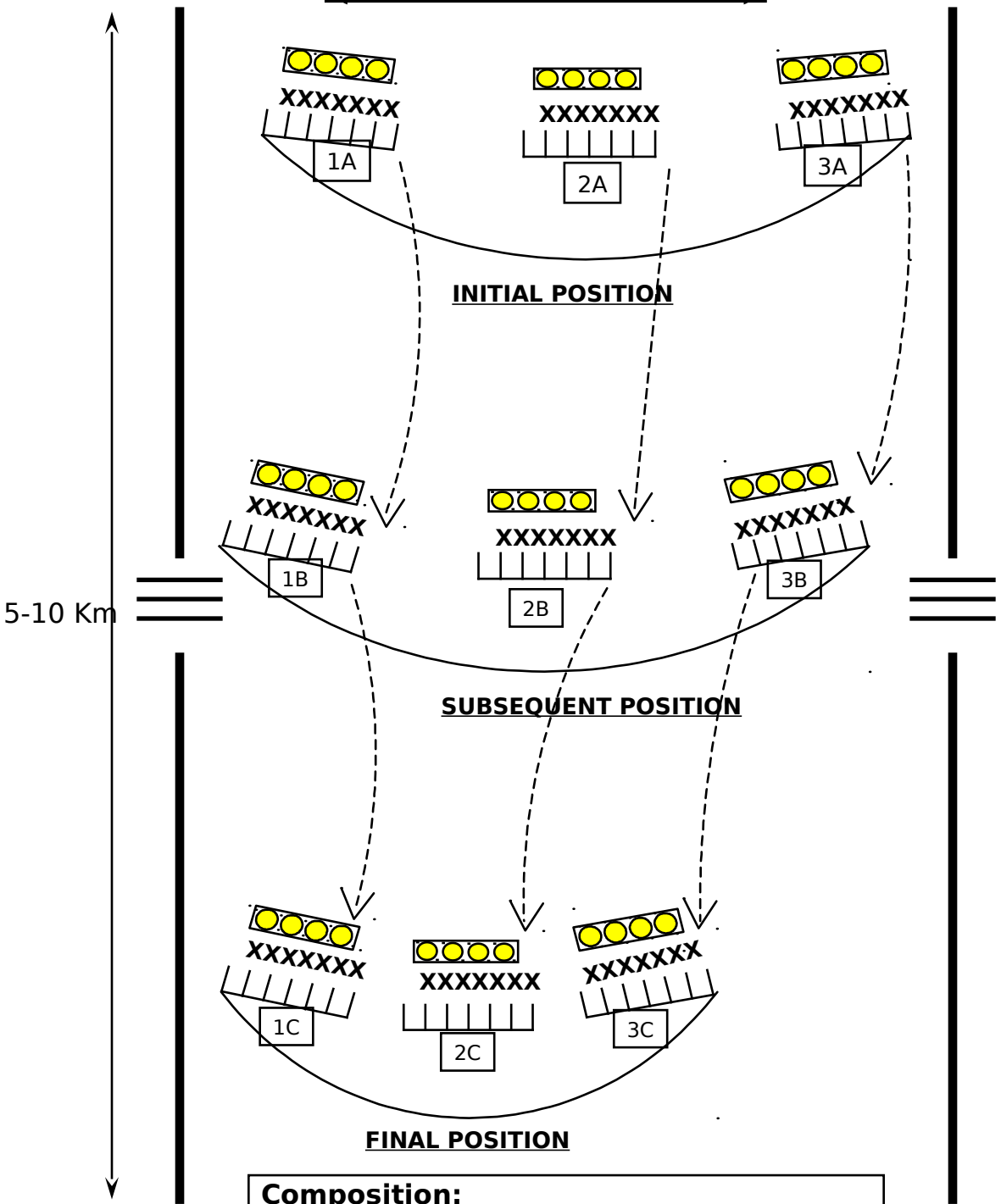
OPFOR DEFENSE TIME-LINE

EVENT	TRIGGER	ENEMY ACTION	OB	PHASES OF FIRE
H-36 - H Hour		OPFOR SET SCREEN LINE AND COUNTER-RECON WITHIN DAG RANGE.	4 x BMP-1(P), 4 x BRDM-2, 2 x GSR, 3 x DF, 3 x BRDM-2rkh, 1 x ERP, 2-3 DRTs	I = Counter-Preparatory Fires: Target AAs / Arty Btrys, Called by DRTs
BLUEFOR PRE-LD / H-36 - H Hour		COMPANIES OCCUPY BEHIND BPs. EACH COMPANY PUSHES OUT A PLT TO SCREEN AND PROTECT ENGINEERS DURING BP PREPARATION AND OBSTACLE CONTRUCTION.	3 x T-80, 10 x BMP-1(P)	II = Fire Interdiction: P-Chem, FASCAM, Interdict/Disrupt mvmt formations, Shapes Battlefield, DAG initially, then RAG fires called by REGT RECON and CSOP
BLUEFOR RECON / H-24 - H-12		HINDS CONDUCT COUNTER-RECON SWEEPS. PERSISTANT CHEMICAL USED TO SHAPE THE BATTLEFIELD. EW COLLECTION TARGETS RECON AND C&C NETS. DECEPTION BPs IN PLACE.	4 x HIND, 2 x P-Chem Strike, 3 x DF, 2 x JAMMING	
BLUEFOR LD	LEAD ELEMENT REACHES DIV RECON	ARTY BEGINS ROLLING BARRAGES AND ROCKET BOXES. CAS COMMITTED (2-6 SORTIES)	DAG: 36 X 2S5, 18 X BM-21 / RAG: 18 X 2S1, 36 X 2S19	III = Repel BLUEFOR Attack: NP-Chem, Conventional, Most important phase, Starts at LD, Ends at OPFOR defensive positions, Rocket Boxes on open AAs, Rolling barrages on canalized AAs, DAG / RAG / Mortar Fires
BLUEFOR ARTY PREP		OPFOR REMAINS IN ARTY HIDE POSITIONS. OCCUPY BPs AFTER COMPLETION OF PREP.		
	LEAD ELEMENT REACHES REGT RECON	ARTY CONTINUES; CAS CONTINUES; NP-CHEM ON MAIN AAS; FASCAM ON CHOKE POINTS; REPOSITION RESERVE ON MAIN AA.	2-6 Sorties in pairs, 6 x NP-Chem	
BLUEFOR ENTERS MBA	LEAD ELEMENTS CONTACTS CSOP	CSOP DECEIVES AND DELAYS MAIN BODY, THEN PULLS BACK INTO BPs	Up to 3 CSOPs: 1 x T-80, 2 x BMP-1(P) (PER)	
BLUEFOR ENTERS MAIN OBSTACLE BELT	BREACH AND/OR BYPASS	1ST ECHELON ENGAGES WITH DIRECT FIRES (T-80 AND BMP FROM FRONT, INFRANTRY WITH AT-5 FROM FLANKS). ARTY ON BLUEFOR FOLLOW-ON FORCES.	29 x BMP-1(P), 7 x T-80, 6 x AT-5, 200 x INF, 6 x M120	IV = Fire Support of Defending Troops: FPF, Prevent the attack from developing, Stop deeper penetration, Separate INF and AR
PENETRATION OF BPs	LEAD ELEMENT CONTACTS RESERVE	MRB RESERVE ENGAGES WITH DIRECT AND INDIRECT FIRES. AT RESERVE ENGAGES FROM FLANKS. HINDS ENGAGE.	3 x T-80, 3 x AT-5, MOD, 2 x HIND	
BLUEFOR SEIZES OBJ	LEAD ELEMENT CONTACTS CAR	CAR COUNTER-ATTACKS WITH DIRECT AND INDIRECT FIRES.	3 x T-80, 8 x BMP-1(P)	V = Fire Destruction of BLUEFOR during CATK: Conventional, Supports REGT Reserve commitment

DOCTRINAL TEMPLATE #5
MRC IN THE SECURITY ZONE

- The mission of the MRC is to delay and attrit the BLUEFOR during their approach by destroying friendly recon and disrupting march security.
- The composition is usually an MRC reinforced with a tank platoon, engineer platoon, AT platoon, mortar battery and 2S1 howitzer battery.
- Recon Patrols and OPs detect the BLUEFOR approach.
- The security zone is 10-15 km deep. Final fighting positions are just forward of the main defensive belt.
- MRC initial and subsequent battle positions are 3-5 km wide.
- MRC final position will narrow to 2-3 km wide based on attrition during the delay.
- Attack helicopters support the MRC in the security zone when in contact and covers their withdrawal.
- The MRC uses terrain which permits them to accomplish their mission with the smallest possible amount of forces, resources and time.
- Obstacles are wire and minefields that may only be one row deep. They become denser as BLUEFOR nears the final MRC position and the main defensive belt.
- The howitzer battery covers the final withdrawal of the MRC.
- Smoke is used to cover withdrawing MRPs.

DOCTRINAL TEMPLATE #5
MRC IN THE SECURITY ZONE
(CONTINUED)



Composition:

- 12 x BMP-1(P)
- 3 x T-80
- 3 x BRDM-2 (AT-5)
- 6 x 2S1
- 8 x M120 (120mm Mortars)
- 3 x BTR-60 (ENG)

DEFENSE IN CONTACT/SECURITY ZONE

- MOST COMMON
- OPFOR GIVEN A NLT DEFEND TIME, ANYTIME AFTER WHICH THE BLUFOR MAY ATTACK
- BLUE RECON IS NORMALLY IN SECTOR PRIOR TO OPFOR NLT DEFEND TIME
- OPFOR RECON NORMALLY GIVEN A LIMIT OF ADVANCE WHICH COINCIDES WITH THE BLUE LD

DEFENSE OUT OF CONTACT

- OFTEN OCCURS DURING ACR AND DIV CAV ROTATIONS
- BLUFOR GIVEN A NLT ATTACK TIME, OTHERWISE FREE TO EMPLOY COMBAT POWER AT ANY TIME / POINT ON THE BATTLEFIELD
- KRASNOVIANS PREPARE INITIAL, SUBSEQUENT, AND FORWARD POSITIONS IN SECURITY ZONE
- ATTACK MAY COME BEFORE DEFENSIVE OPERATIONS ARE COMPLETE

MRB IN THE DEFENSE

FOUR PHASES

- PREPARATORY /RECON / COUNTER-RECON PHASE
- INTERDICTION OF ATTACKING FORCES PHASE
- MAIN DEFENSIVE AREA ENGAGEMENT PHASE
- REESTABLISHING FIRST ECHELON DEFENSE PHASE

TIMELINE

- More difficult to predict than the Attack (BLUFOR-dependent)
- Often unfolds as follows:

  - » 1600 D-2 OCCUPY SECTOR (start Phase I)
  - » 0600 D-day BLUFOR LD (Phase II)
  - » 0830 ENGAGE CSOPs
  - » 1030 ENGAGE MDA (Phase III)
  - » 1130 PENETRATE OR TRANSITION TO HASTY DEFENSE (Phase IV)
  - » 1230 CTM

5 CRITICAL QUESTIONS MRB CDR'S MUST ANSWER

- WHERE DO I BUILD MY ENGAGEMENT AREA?
- WHEN DO I OCCUPY / WHO OCCUPIES BPS?
- WHERE/WHEN DO I COMMIT MY RESERVE?
- HOW DO I RECONSTITUTE MY RESERVE?
- DO I NEED TO COUNTER-ATTACK?

PREPARATORY PHASE

- **SUB-PHASES**
  - » SECURE SECTOR / COUNTER-RECON OPS
  - » DECEPTION
  - » BP / EA CONSTRUCTION
  - » REHEARSAL / REFINEMENT

- **MAJOR PLAYERS**

  COUNTER-RECONNAISSANCE
  - » REGIMENTAL RECON
  - » MRB RECON PLT (CRP)
  - » ENGINEER COMPANY
  - » FIRES
  - » SOKOL
  - » ANTI-DESANT

- **MRB RECON PLATOON**
  - » Organization - 3 x BMP
  - » Mission - Establish Combat Security Outposts (CSOP) or ambush psns
  - » Additional key point - May be augmented by MRPs from MRCs during the counter-recon phase, to provide coverage of the MRB sector

TIMELINE

MRB Occupies Sector

- Specific time CBI-driven
- Concurrent Actions:
  - » CSOP occupies
  - » Engineers, EW assets active
  - » Counter Prep Fires
    Artillery raids
    Counter op fires
    Special munitions
    Deception
  - » AD occupies/preps area

Phase I Fires (Interdiction of Advancing Enemy Troops)

- DAG:
  - » Available when MRB occupies sector pending release from the MRD commander
- RAG:
  - » Available when MRB occupies sector
- Mortars:
  - » Available when MRB occupies sector
- SOKOL:
  - » Occupation of MRB defense through prep phase
- IVAN:
  - » Timeline CBI/mission-dependent

INTERDICTION OF ATTACKING FORCES PHASE

- MAJOR PLAYERS

  Regimental Recon w/ADA

  Fire Support/CAS

  Combat Security Outposts and Ambushes

- KEY EVENTS

  P**hase I Fires**

  (Early Phase II Fires) deep fires to repel enemy attack

  Close Air Support

  Special Munitions / UMZ and EL MOD

  Deception / Counter-Reconnaissance Forces displacement

  Occupation of BPs - possible **Reserve** commitment

  CSOP / Ambush Position engagement to cause enemy deployment / shape EA

- CSOPs AND AMBUSHES

  Pick up counter-reconnaissance mission after screen withdraws

  Retain terrain to force the enemy to prematurely deploy and force enemy into MRB kill sack

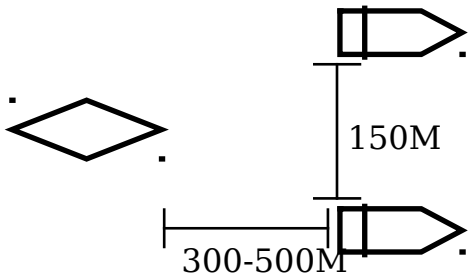
  May allow enemy combat power to bypass in order to engage C3 elements

OPFOR COMMAND SECURITY OUTPOST (CSOP)

MISSION: To deceive the BLUEFOR as to the true location of the main belt defene and to cause the early deployment of Blue Forces.

COMPOSITION:

* Usually 3 armored vehicles
* Common mix of 1Tank and 2 BMPs
* Tanks to the rear of BMPs



EMPLOYMENT:

* Located behind key terrain
* Located on concealed flank in dead space
* Located in front of Company / Battalion BP 2.2-4Km

MAIN DEFENSIVE AREA ENGAGEMENT PHASE

- MAJOR PLAYERS
  - » MRB
  - » FIRE SUPPORT
  - » AT RESERVE
- SUB-PHASE
  - » MRCs in contact / defend BPs
  - » MRB Reserve committed upon identification of enemy main effort
  - » MRB Reserve reconstituted from BPs or unthreatened flank
  - » Out of contact CSOPs / Ambushes displace
  - » MRR Reserves committed to prevent imminent penetration, or to destroy penetration
- MRB
  - » Organization -10 x T-80 / 35 x BMP / 200 x Dismounts
  - » Mission - Defeat attacking enemy forces in sector and retain control of key terrain
  - » Timeline - Per CBI / generally 40 hours prior to NLT defend time
  - » Additional key point
    - Prefer to defend in depth (2 echelons)
    - May defend single echelon to cover wide sector
    - Standard MRB Reserve is 1/9 the combat power 1 x T-80 / 3 x BMPs

MDA ENGAGEMENT PHASE, continued

- Phase III Fires
  - **RAG, Mortars, SOKOL** focus on Kill Sacks and defeating penetrations
  - **DAG** and **IVAN** continue to interdict follow-on forces

- **Anti-Tank Reserve**
  - Organization
    - 3 x AT-5 / 2 x 2A45M
    - Can be a full battalion
  - Mission
    - Prevent or defeat enemy penetrations
  - Timeline
    - Committed based on mission guidance

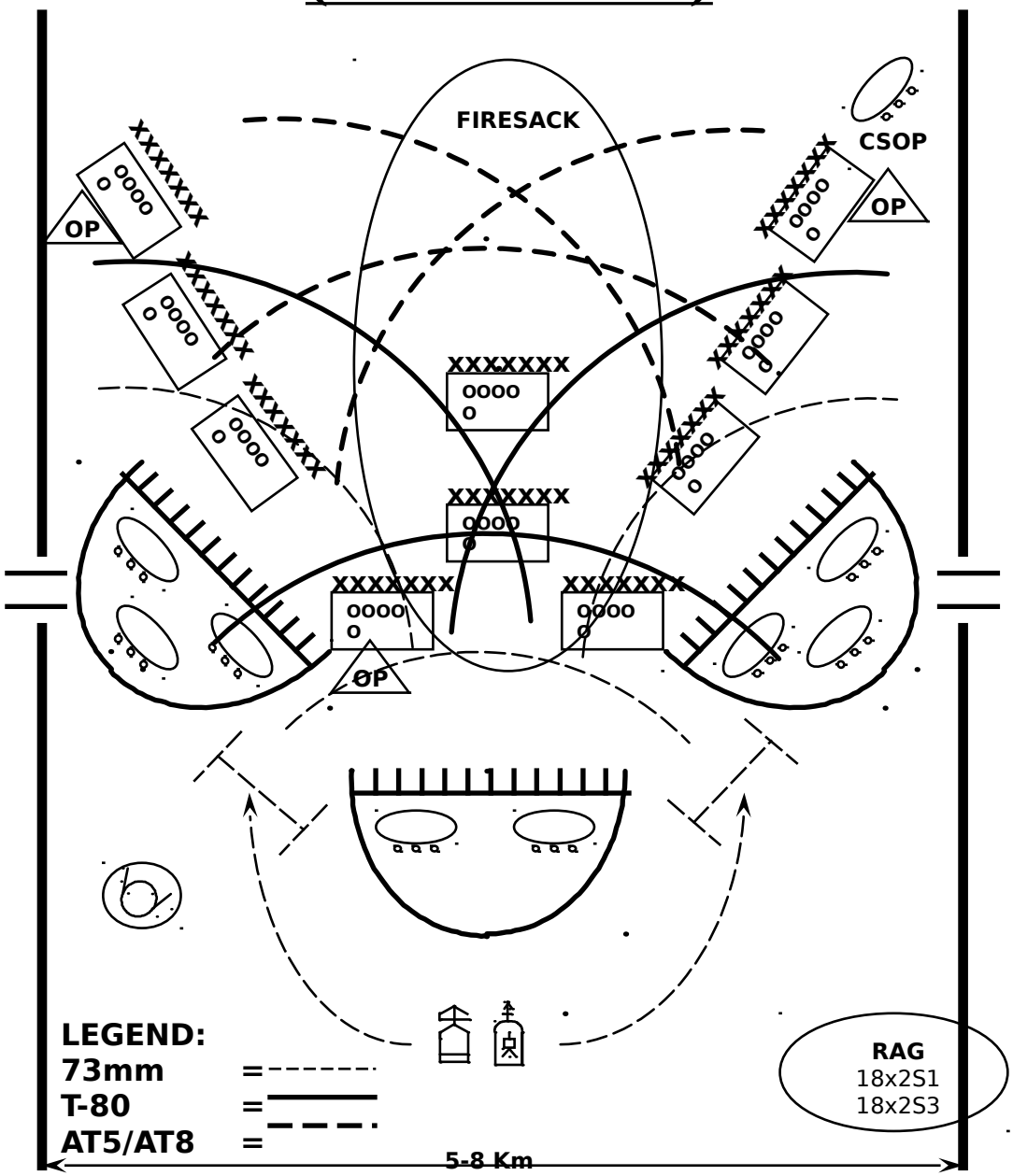
REESTABLISHING FIRST ECHELON DEFENSE PHASE

- SUB-PHASES
  - » **MRD / MRR / MRB Reserve and out of contact BPs** counter-attack to restore first echelon positions
  - » Redistribution of forces across the front
  - » Preparation for follow on missions
- MAJOR PLAYERS
  - » **Combined Arms Reserve (CAR)**
  - » **Fire Support**
- COMBINED ARMS RESERVE
  - » Organization - 3 x T-80s / 8 x BMPs
  - » Mission - Counter-attack to reestablish the defense
  - » Timeline - Generally MRD Commander release authority
- Phase IV Fires
  - » **DAG / RAG / Mortars** fire destruction of the enemy during the counter-attack
  - » **SOKOL** supports counter-attack
  - » **Electronic Warfare Attack (EA)** focuses on fire support nets

DOCTRINAL TEMPLATE #6
MRB (+) DEFENSE OF THE MRR MAIN BELT

- **DIVISION RECON** - Deploys out to 20-50 km from main defensive belt. Inserts DRTs throughout friendly sector. Div RECON conducts active recon to identify avenues of approach and artillery locations to target for Phase I counterpreparatory fires.
- **REGT RECON** - Deploys out to 10 km from main defensive belt. Provides combat information and early warning to the MRR CDR. Semi-static patrols and OPs adjust artillery in support of deep battle.
- **CSOP** (Combat Security Outpost) - Delays, inflicts losses, and deceives BLUEFOR about main defensive belt location.
- **OBSTACLES** - Emplaced to slow down, break up, and force BLUEFOR formation into the fire sack. Bypassing obstacles may be exactly what the enemy wants friendly forces to do.
- **FIRE SACK** - Area of interlocking fires where enemy wants to hold and destroy BLUEFOR.
- **MAIN DEF POSITIONS** - MRC defensive positions deploy with platoons 2 up and 1 back or single echelon. Range markers are placed forward to identify BLUEFOR when they enter direct fire range. Individual combat vehicle positions cover obstacles. Dismounts cover obstacles on the flanks.
- **MRB RESERVE** - Consists of AT Reserve, HINDS, and MRP and is initially centered behind defensive positions. Once the friendly main effort is determined, the reserve flexes to reinforce the threatened MRC. HINDS will fire from behind the main forces.
- **COMBINED ARMS RESERVE -** Consists of MRC(+) that is initially positioned with the 2nd echelon MRB. CAR flexes to destroy BLUEFOR penetrations.
- **NBC** - Persistent agents are used to shape the battlefield by denying avenues of approach to the attacking force or securing flanks of the defense. Nonpersistent agents are used in the fire sack.
- **ARTILLERY** - Fires on preregistered targets with massed fire. Preplanned targets are placed in the vicinity of easily identifiable terrain features.
  - DEFENSE PHASES OF FIRE:
    Phase I - Counterpreparatory Fire (counterbattery)
    Phase II - Fire Interdiction of Advancing Troops
    Phase III - Fire to Repel Enemy Attack
    Phase IV - Fire Support of Defending Troops (FPF)
    Phase V - Fire Destruction of Enemy During Counter-Attack
- **MORTARS** - Incorporated into overall fire plan.
- **ATTACK HELICOPTERS** - Fires from flanks to destroy penetrating forces; and possibly used in cross FLOT deep attacks within supporting artillery range.
- **ADA** - 2S6 or ZSU-23-4 position on the flanks or high ground of the main defensive belt. Each MRC position has SA-14/16/18. SA-9/13 locate with CPs and RAG.
- **COMMAND AND CONTROL** - The MRB command post is centrally located behind the defense.

DOCTRINAL TEMPLATE #6
MRB (+) DEFENSE OF THE MRR MAIN BELT (CONTINUED)



NOTES:

- MRB(+) Defensive Composition: 45 x BMP-1(P), 10 x T-80, 8 x 120mm Mortars, 6 x AGS-17, 2 x SA-9, 2 x 2S6
- MRC Strongpoint: 12 x BMP1(P), 3 x T-80s, 12 x RPG-7s, 9 x RPG-16, 18 x PKM(7.62 Machine Gun), CAR/AT

  Reserve: *3 x T-80, and/or 2 x MT-12, 3 x BRDM w/ AT-5s
- CSOP: 3 x BMP1(P) (From the MRB(+) total strength)
- Mines: 500m x 60m, 3-4 rows, 5000m total; wire in front or behind minefields.
- Reg Recon: 4 x BMPs/4 x BRDMs/10 km out.
- Div Recon: 4 x BMPs/4 x BRDMs/6 x DRTs, 10 - 15km out.

SECTION III

TACTICS

MRB FORMATIONS (OFFENSE ONLY)

- **999 - MARCH FORMATION (MRB)**
  - » **10,000 METERS FROM ENEMY, USED FROM LD**
- **666 - PRE-BATTLE (MRR/MRB)**
  - » **6,000 METERS FROM ENEMY**

- **333 - PRE-BATTLE (MRC ONLY)**
  - » **3,000 METERS FROM ENEMY**
- **111 - BATTLE (MRB/MRC)**
  - » **1,000 METERS FROM ENEMY**
  - » **ATTACK OR ASSAULT PHASE**

BATTLE DRILLS

- **FIX & BYPASS OR FLANK ATTACK**
- **ACTION RIGHT (LEFT/REAR/FRONT)**
- **OBSTACLE BREACH**
- **FASCAM**
- **REACT TO ATTACK HELICOPTERS, BLUE AIR, INDIRECT FIRE, MISSILES**
- **CONSOLIDATION**

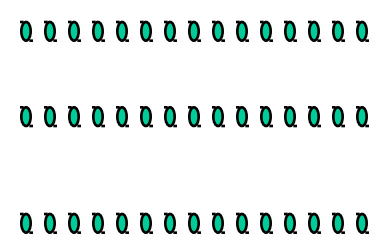
MOVEMENT FORMATIONS

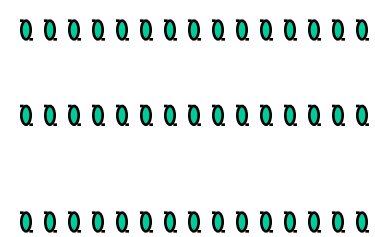
9-9-9

Battalions in Column

MOVEMENT FORMATIONS

6-6-6

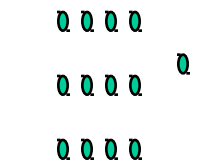


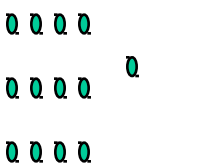


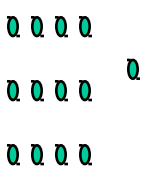
Companies in Column

MOVEMENT FORMATIONS

3-3-3







Platoons in Column

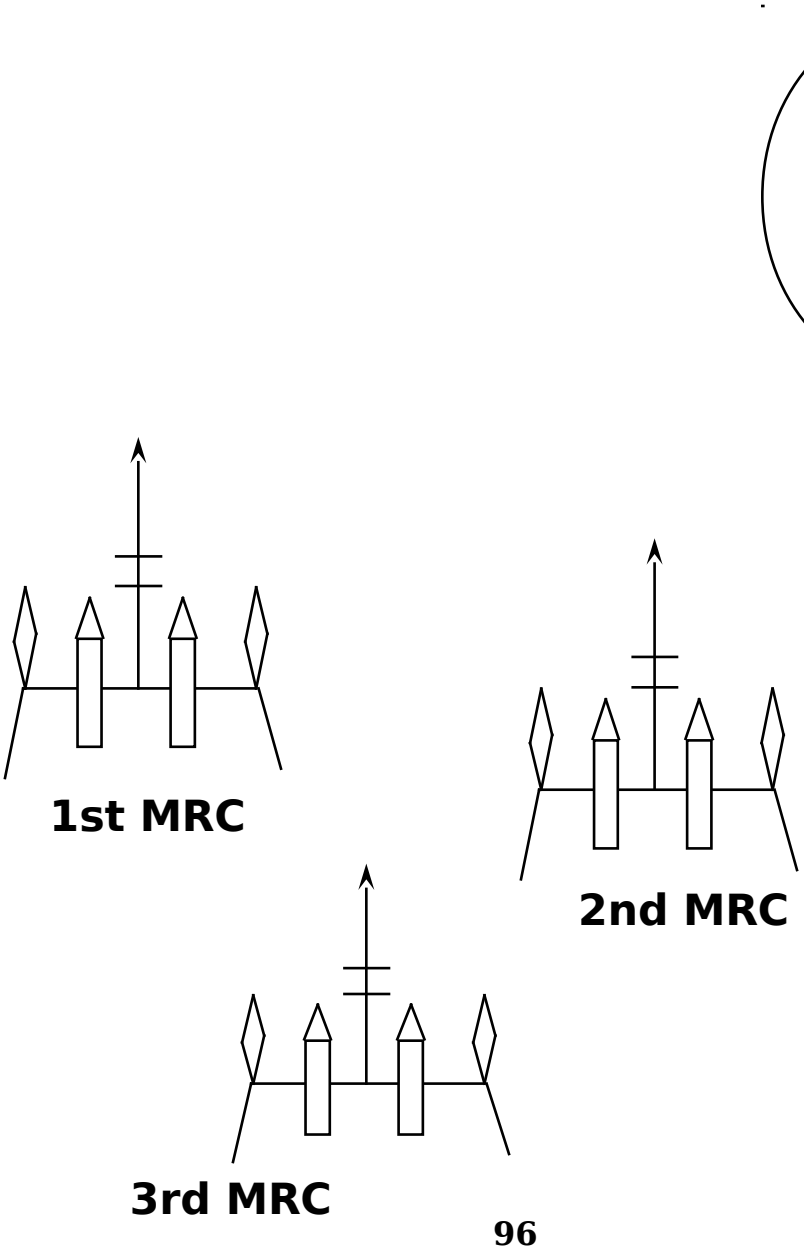
MOVEMENT FORMATIONS

1-1-1

All on Line

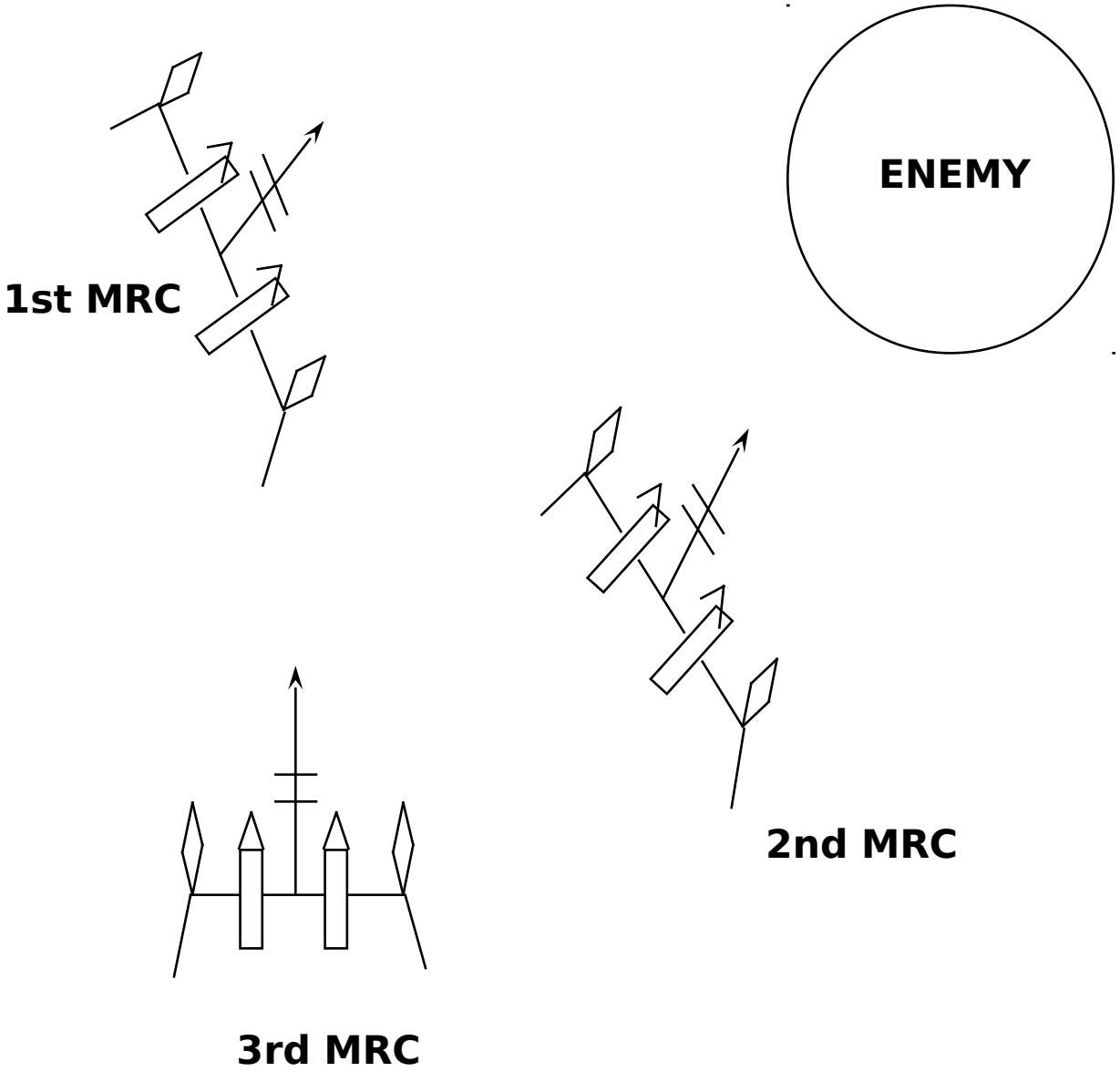
Battle Drill

Flank Enemy 1



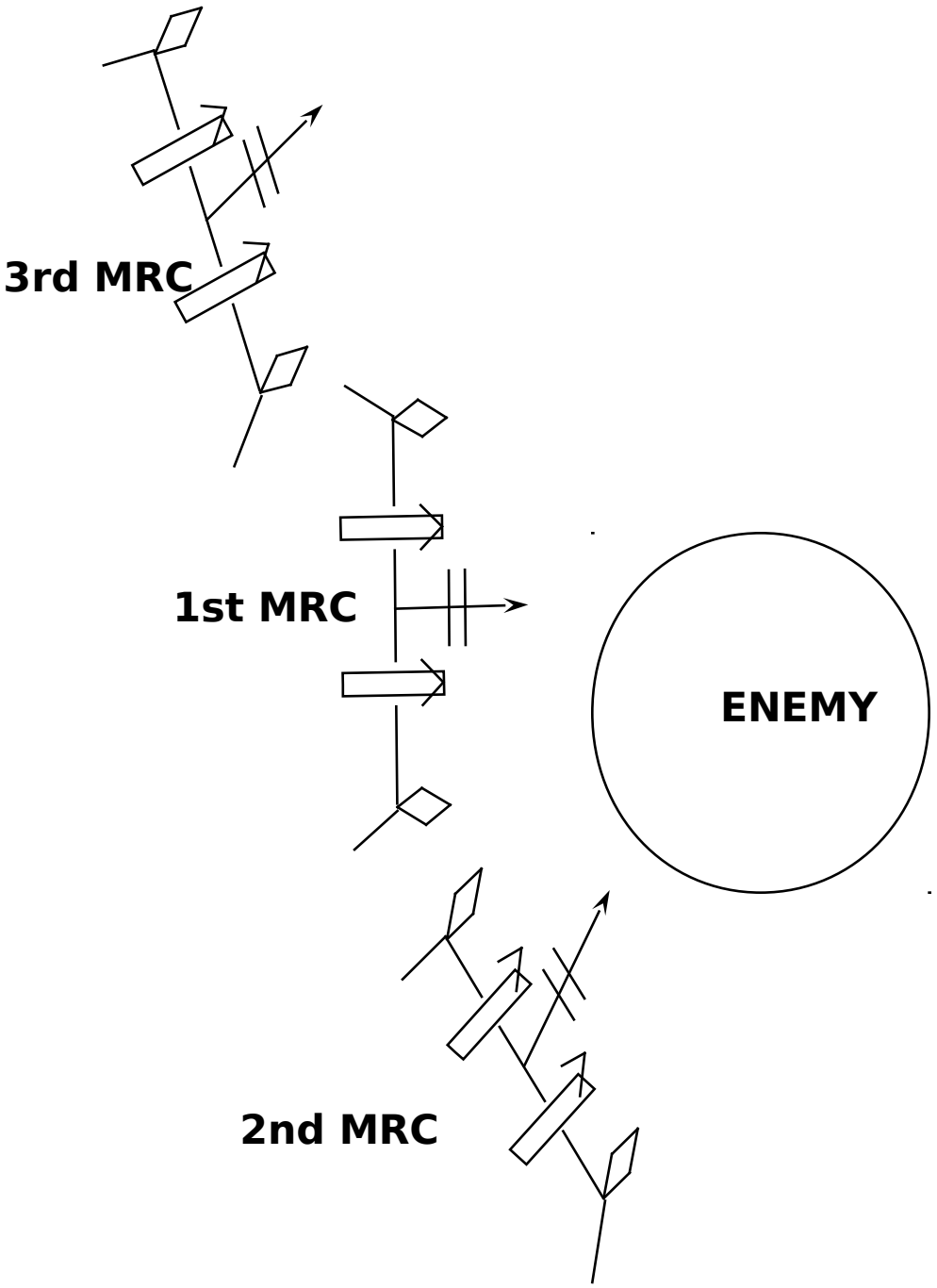
Battle Drill

Flank Enemy 2



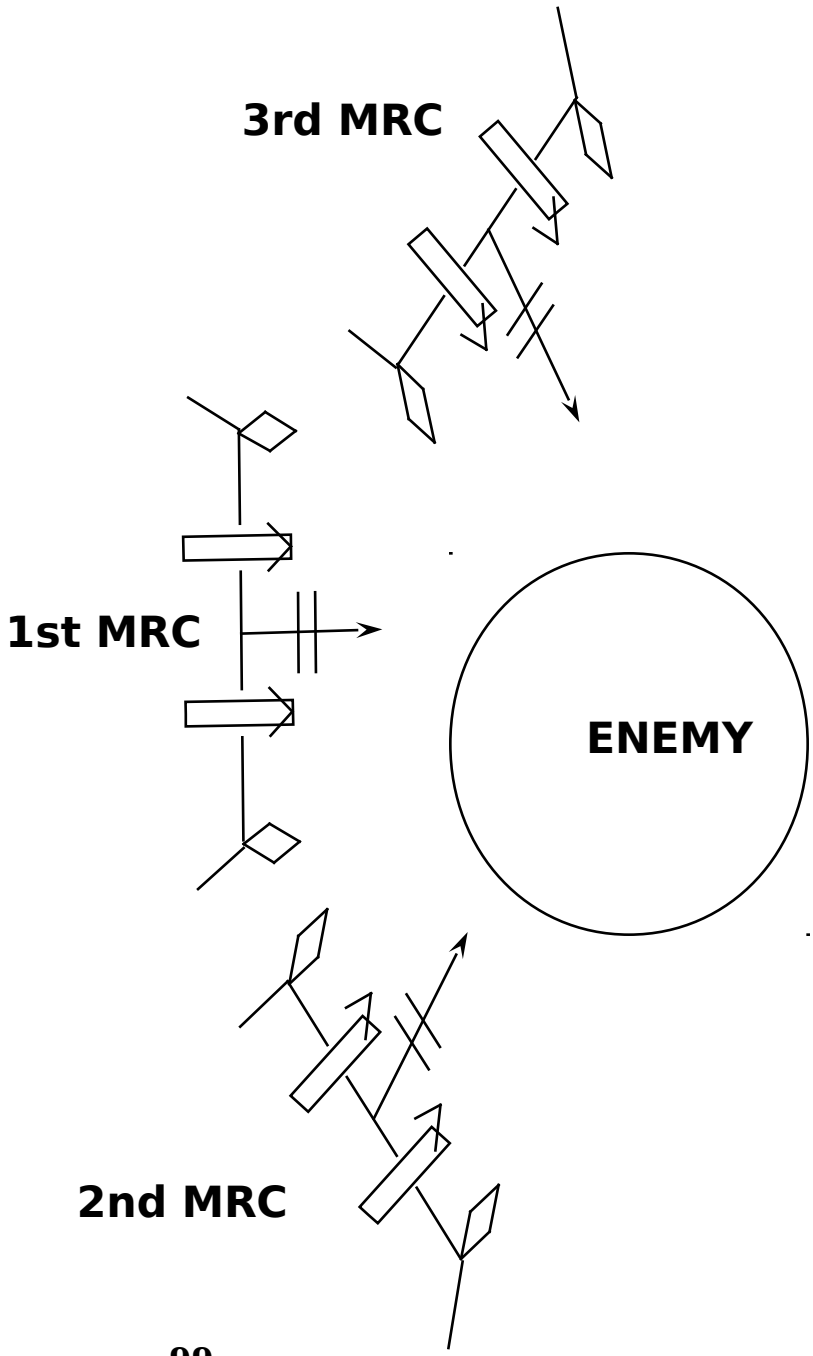
Battle Drill

Flank Enemy 3



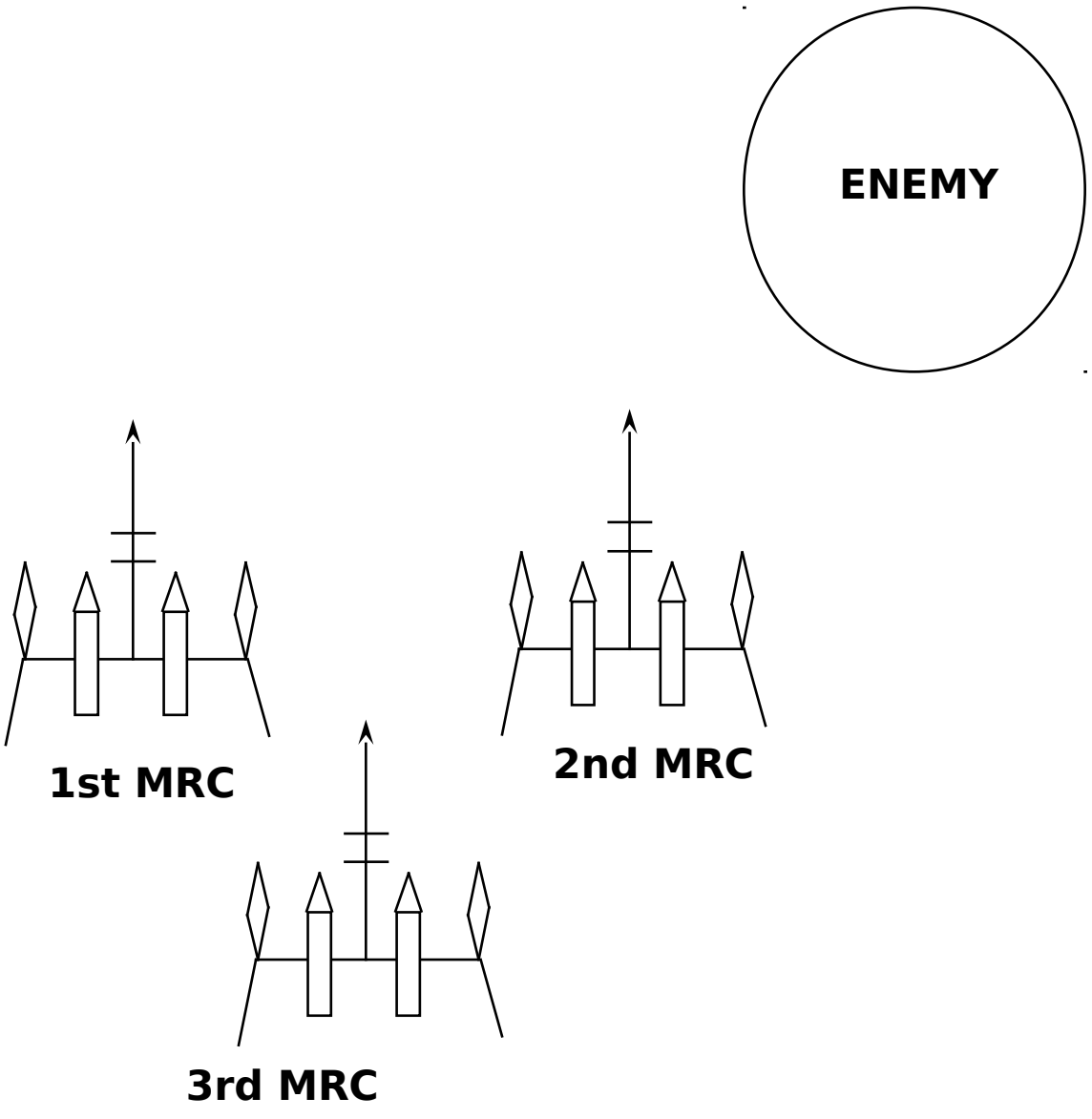
Battle Drill

Flank Enemy 4



Battle Drill

Fix and Bypass 1



Battle Drill

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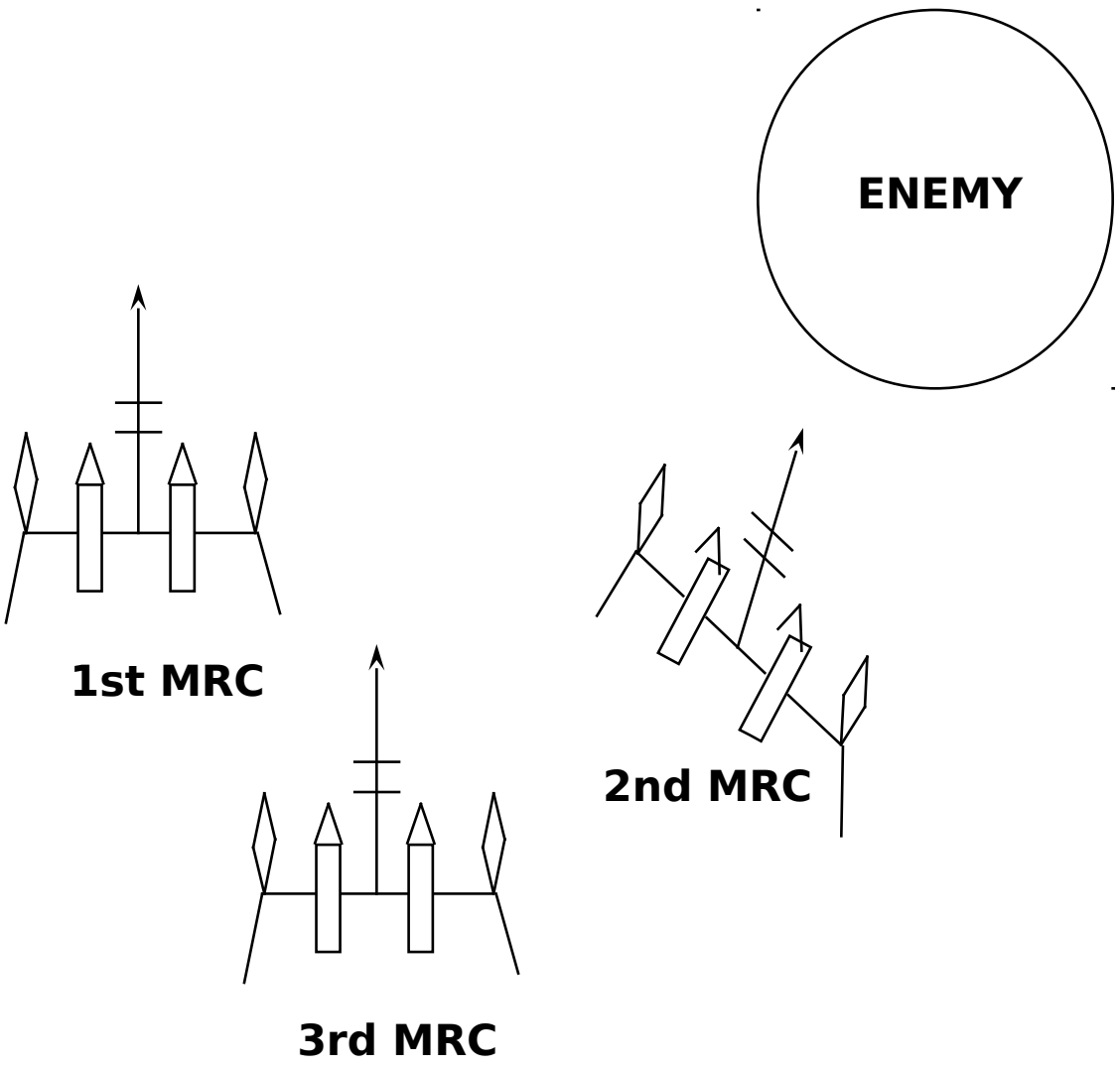
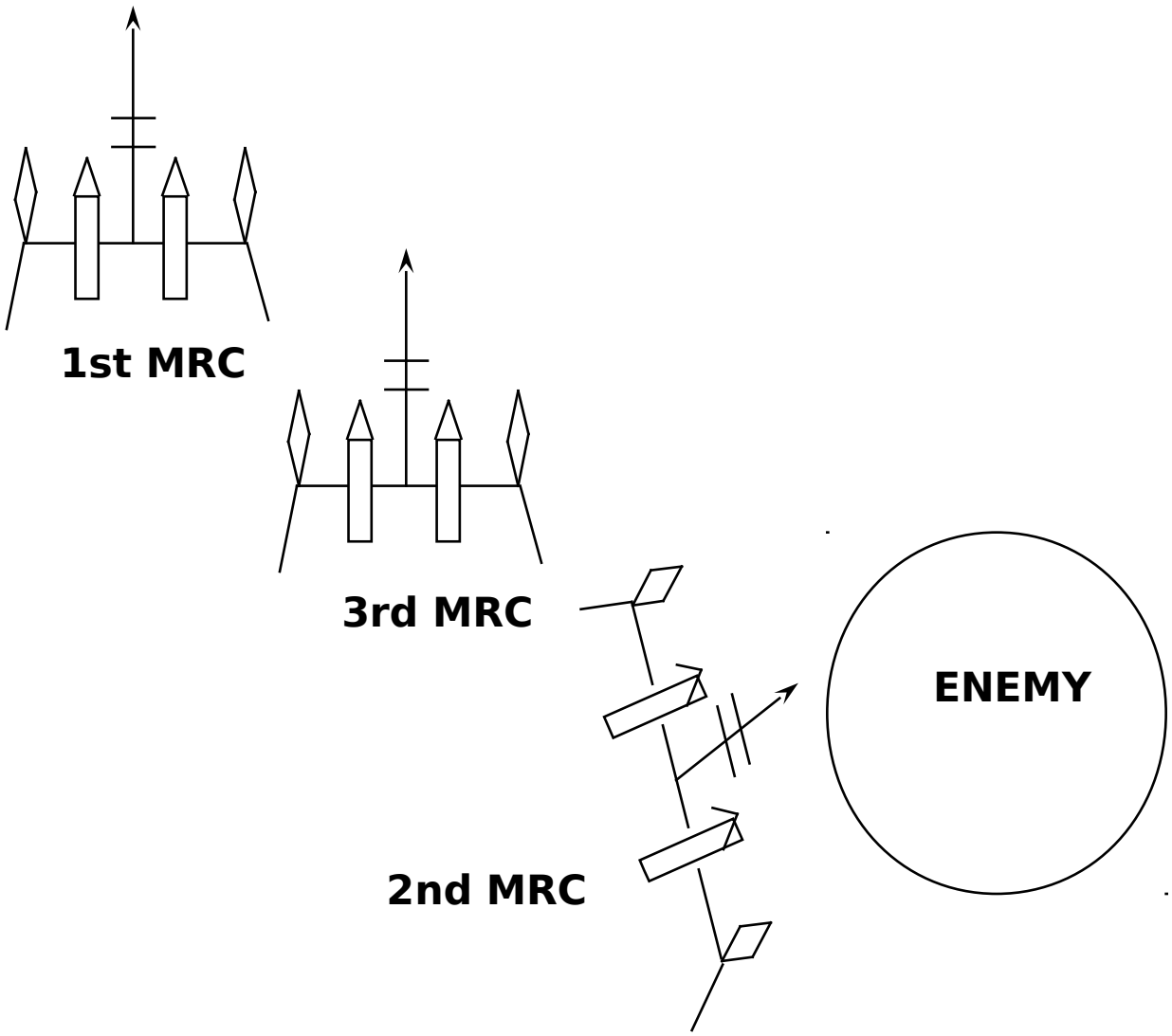


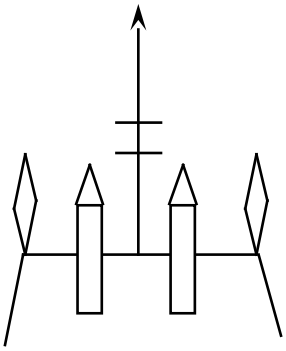
Battle Drill

Fix and Bypass 3

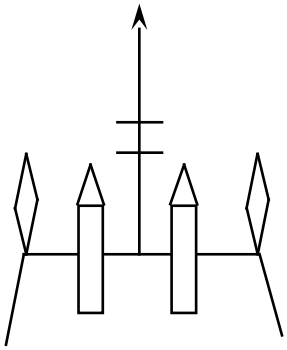


Battle Drill

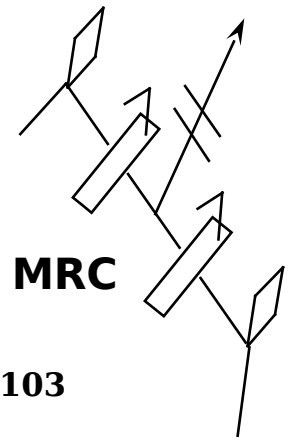
Fix and Bypass 4



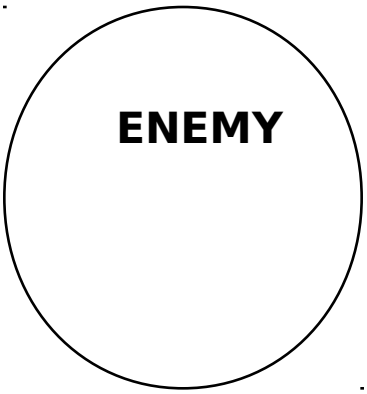
1st MRC



3rd MRC

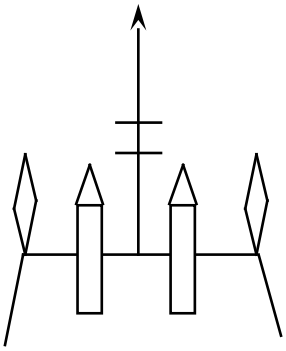


2nd MRC

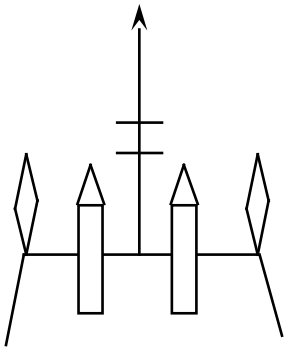


Battle Drill

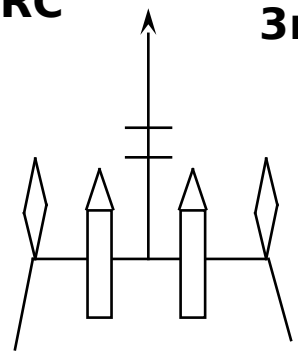
Fix and Bypass 5



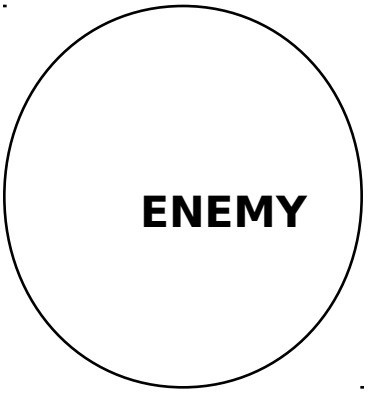
1st MRC



3rd MRC

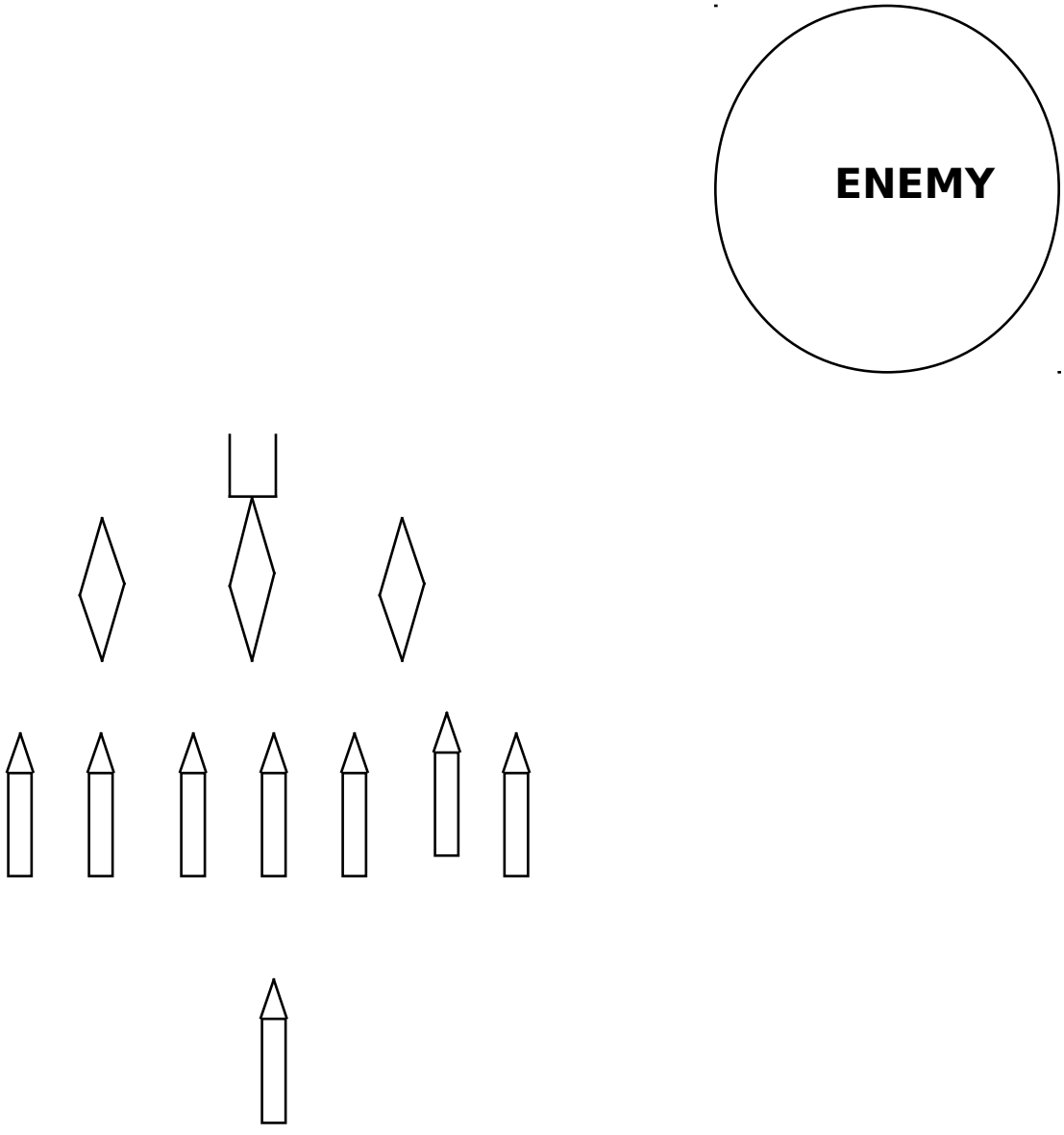


2nd MRC



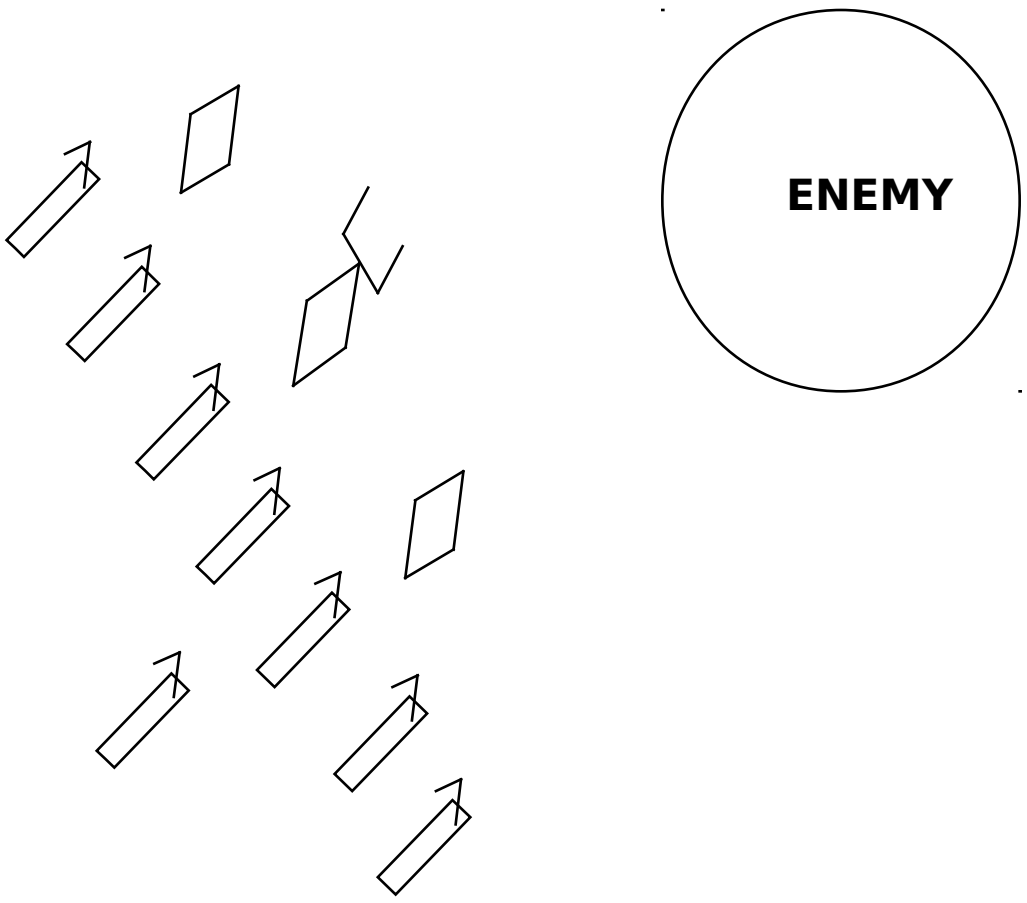
Battle Drill

Action Right 1



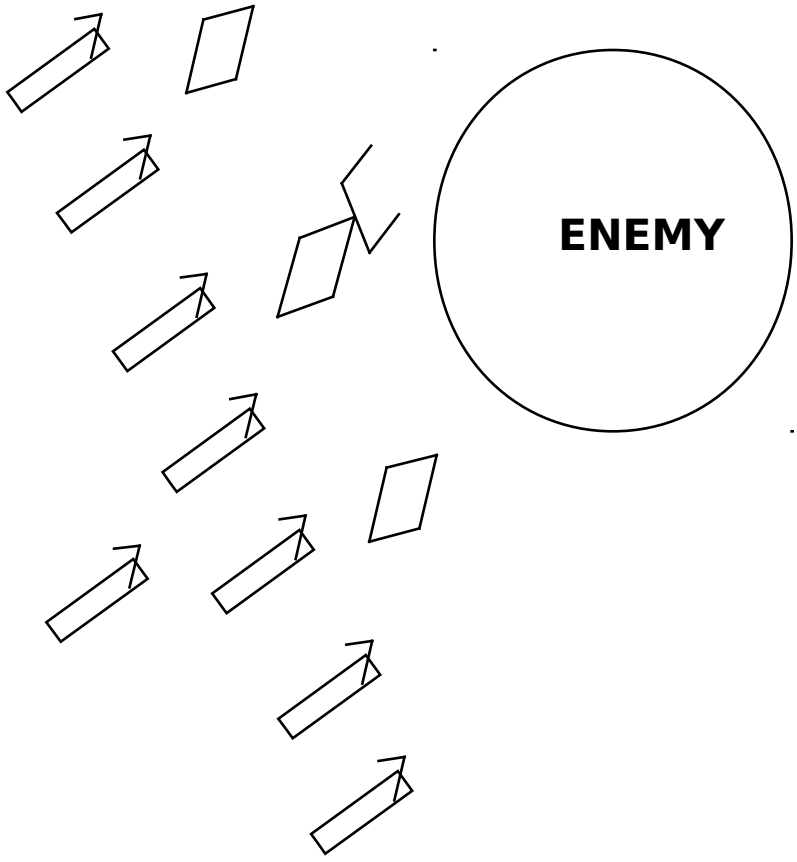
Battle Drill

Action Right 2



Battle Drill

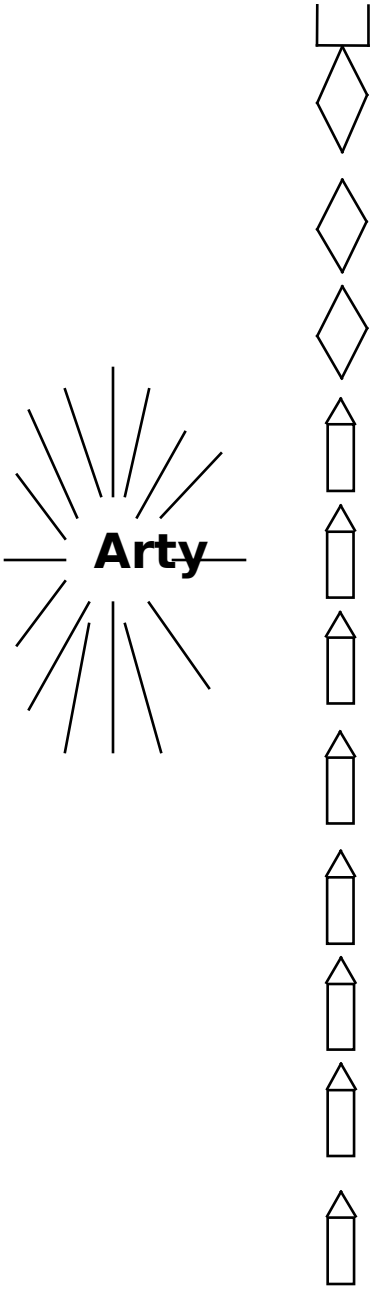
Action Right 3



Battle Drill

React to Indirect Fire 1

React to Indirect Fire 2



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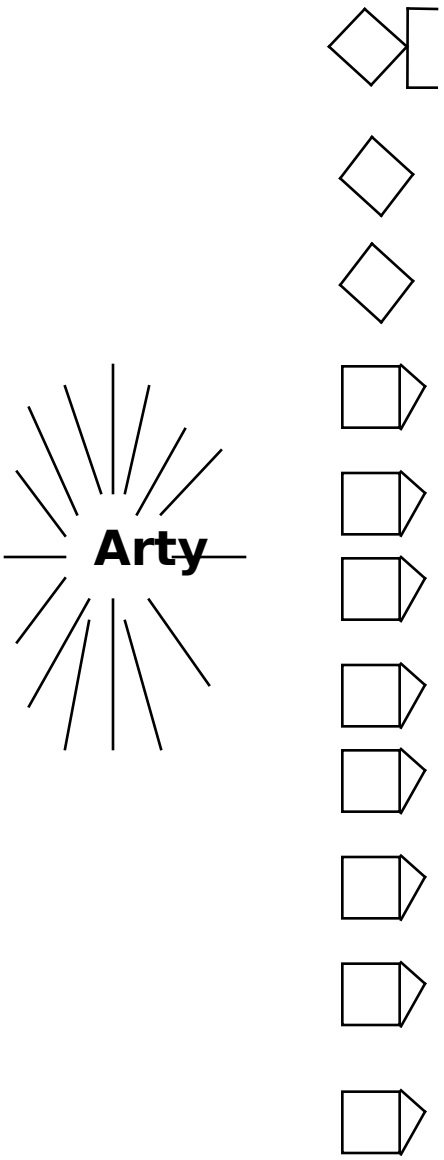

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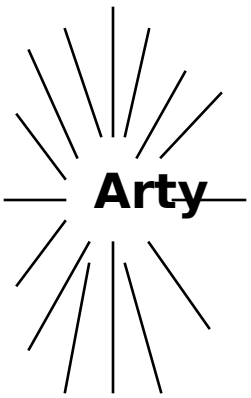
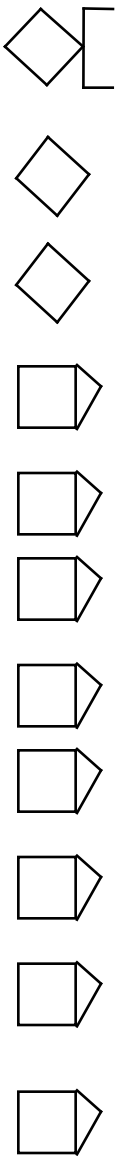
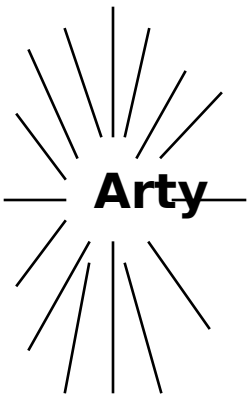
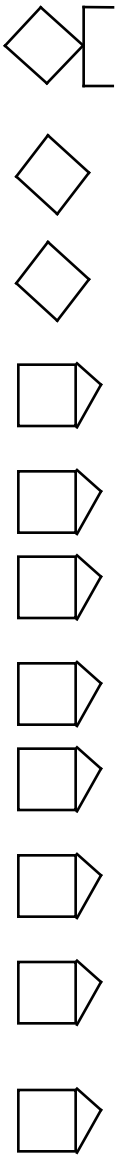


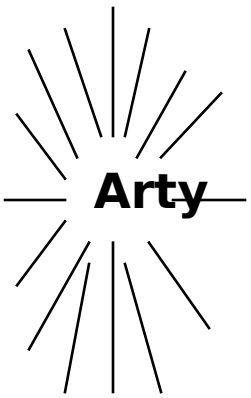


React to Indirect Fire 5



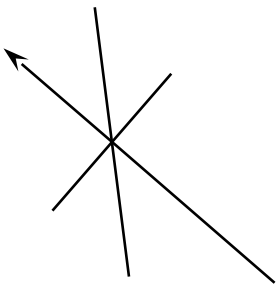


React to Indirect Fire 6

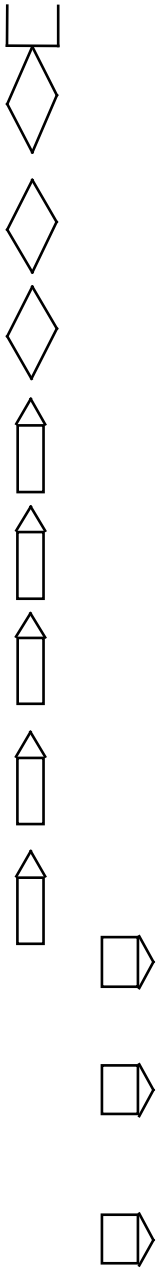


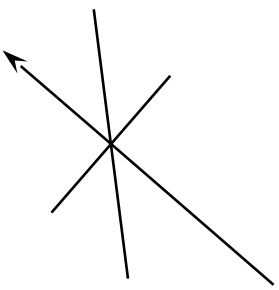
Battle Drill

Helicopter Attack 1

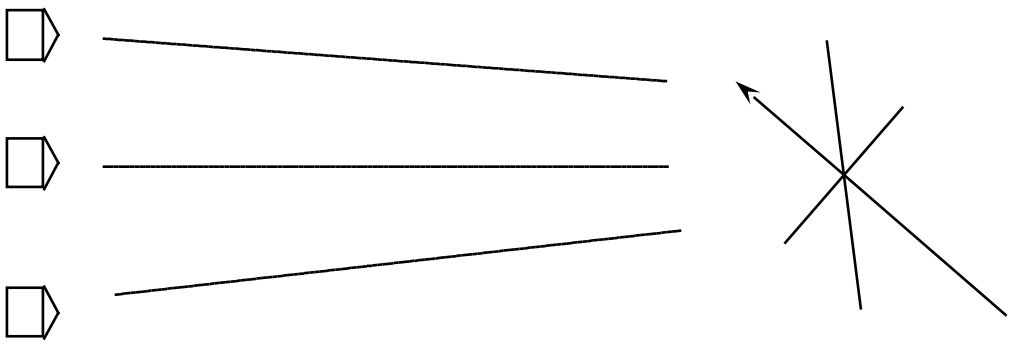


Helicopter Attack 2





Helicopter Attack 3



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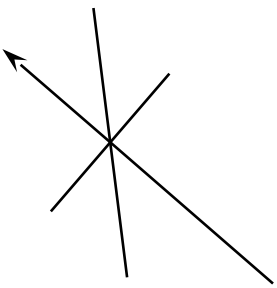

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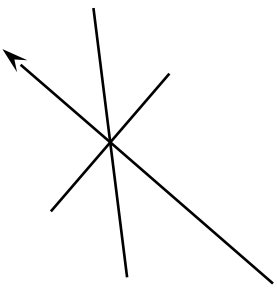


THREAT SPECIAL TASK FORCES

TASK FORCE ANGEL (BN) (Air Assault):
MISSION - To infiltrate Infantry behind our defenses in order to disrupt the BLUEFOR plan and support the OPFOR attack.

- TF Angel normally begins its mission at EENT the night prior to an attack; however, an insertion at BMNT is also possible.
- 10 x MI-8 HIPs (VISMOD UH-1s) will insert the infantrymen. 2 x HIND-Es (SOKOL) will provide escort and secure the LZ.
- Normally consists of 100 infantrymen, **3 x dismounted AT-5s with thermal sights, SA-14s, and sappers may be attached (AT-5s will kill hovering helicopters)**
- Supports the main attack by assisting the FD in securing key terrain or neutralizing key units, such as the BLUEFOR reserves.
- Air assault into the BLUEFOR rear area.
- The air assault is normally supported by a 2S7 artillery battalion with SEAD along the helicopters' route, target prep on or near the LZ, and fire support of the ground forces
- Conducts regimental missions and reports back to the MRR HQ.

TASK FORCE RAMPAGE (BN) (Mounted Infantry):
MISSION - To secure the flank of the OPFOR's intermediate objective and to combat dismounted Infantry and assist in the OPFOR consolidation reports.

- This is a force of 100 dismounts transported in 10 x BMP-2 (M113 VISMODs).
- It usually rides with the AGMB or FD.
- **May have 3 x dismounted AT-5s.**
- OPFOR will use RPG-16s/RPG-18s to protect flanks, conduct dismounted attacks, and breach obstacles.
- During an attack, they normally peel off for a flank maneuver, dismount, and attack BLUEFOR battle positions.

TASK FORCE DESTROYER (BN) (Truck Mobile Infantry):
MISSION - To infiltrate by truck along defensive positions and engage tanks to maximize confusion and disruption among BLUEFOR operations.

- This is a light infantry company that is truck inserted at EENT the night prior to the battle.
- Dropped 2-3 kms from the screen line and walks in.
- TF Destroyer is the BLUEFOR training mechanism for dismounts. TF Destroyer will normally attack these elements.
- Common missions are obstacle reduction, holding key terrain, and infiltrating and destroying BLUEFOR battle positions.
- The commitment of TF Destroyer is tied to a key piece of terrain that the commander must get through to accomplish his mission.
- It could also be used as a fixing force on an exposed flank.
- May have a mortar platoon attached.

TASK FORCE ENGINEER (CO):

- Extra company of engineer aumentees used pimarily in the defense.
- Can be used as a MSD in the offense.

Task Force Angel

- **Air assault** force, 100 soldiers (augmentees) / **3 x AT-5s**
- Normally terrain-oriented, may be force-oriented
- Multiple lifts by 10 x UH1s with 2 x SOKOL escort
- 2S7s from AAG supports SEAD

- **RULES OF ENGAGEMENT**
  - » In Sector Flight Routes - MILES / ADA
  - » Out of Escort Flight Routes - 33 % assessed as killed
  - » All lifts are competitive - Separate LZ authorized if coordinated
  - » Sokol must fly escort within 1500M during Ingress and Egress

Task Force Rampage

- Force of 100 soldiers (augmentees) carried in BMP VISMODs
- Normally force-oriented
- Represents portion of BMP-carried infantry
- May accompany FSE or reinforce MRCs
- Artillery support may include mortars, 2S1s (if with FSE)

Task Force Destroyer

- Dismounted assault force of 100 soldiers (augmentees) **3 x AT-5s**
- Normally force-oriented
- **Trucked** to a certain point, then WALK
- Represents other units already in contact
- Artillery support includes 6 x 120mm mortars

Team Specter

- Krasnovian **raiding team**
- **Not People's Parumphian Guerrillas**
- Target Rear Areas: Signal Nodes, C3, Aviation FARPs
- Size is mission dependent
- Truck-mobile
- FSU small arms
- Hit fast and keep moving

THREAT RECON

ORGANIZATION FOR COMBAT

(TYPICAL CBI AUTHORIZATION)

- DIV RECON - 3 T-80/4 BMP/4 BRDM/1 GSR/6 DRTs (LD at RBE from previous mission)

- REG RECON - 4 BMP/4 BRDM/3 Rkh/1 GSR/1 ERP (usually enter sector EENT night before LD)

- DIV RECON clears sector 6 hours after REG RECON LDs.

- 6 DRTs from DIV RECON remain in sector under REG control.

THREAT RECONNAISSANCE

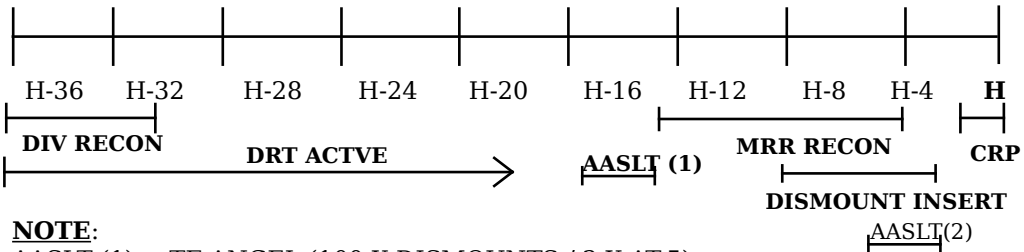
EMPLOYMENT

Reconnaissance Force Tie-In

- Division Reconnaissance develops the intelligence picture.
- Regimental Reconnaissance confirms or develops the intelligence picture.
- Battalion Reconnaissance is the final confirmation or development of the intelligence picture.

OFFENSIVE RECONNAISSANCE TIMELINE

EVENT	PURPOSE
Division Reconnaissance LD at Change of Mission (COM) + 6 Hrs (Enters our sector 24-36 Hrs prior to the main attack)	• Reconnaissance of the main avenues of appr • Observe and report on defensive positions • Look for penetration points • Insert Dismounted Reconnaissance Teams • Ambush • Exits our sector approximately 24 Hrs after
Regimental Reconnaissance LD (Enters our sector NET 12 Hrs prior to the main attack)	• Reconnaissance of 3-4 attack routes • Identify and breach obstacles • Assist in calls for fire on the enemy • Confirms the Division Reconnaissance



NOTE:
AASLT (1) = TF ANGEL (100 X DISMOUNTS / 3 X AT-5)
AASLT (2) = TF DESTROYER (100 X DISMOUNTS)

DEFENSIVE RECONNAISSANCE TIMELINE

EVENT	PURPOSE
Division Reconnaissance establishes screen line 24-36 Hrs prior to BLUEFOR LD	• Screen line out to DAG range • Provides early warning
Regimental Reconnaissance establishes screen line 24-36 Hrs prior to BLUEFOR LD	• Screen line out to RAG range • Provide security • Counter-Reconnaissance • Assist in Calls for Fire, CAS, FASCAM and Chemical Employment

THREAT RECON
DIVISION RECON

DIVISION RECON:

1. USUAL COMPOSITION IS 4X BMPs AND 4X BRDMs. THE BRDMs ARE USED TO CARRY DRT TEAMS.
2. DIVISION RECON WILL ATTEMPT TO INFILTRATE FROM 24 TO 33 HOURS PRIOR TO THE MRR ATTACK.
3. THE THREAT COMMANDER TASK ORGANIZES HIS RECONNAISSANCE ASSETS BASED ON METT-T.
4. RECON VEHICLES PREFER TO WORK IN PAIRS , BUT CAN MOVE INDIVIDUALLY TO RECON THE DIVISION'S SECTOR, IF REQUIRED.
5. DIVISION RECON ELEMENTS MAY LINK-UP IN OUR BRIGADE REAR (BSA) AFTER COMPLETING THEIR RECON MISSIONS TO CONDUCT RAIDS / AMBUSHES ON AVAILABLE SOFT TARGETS.
6. DIVISION RECON WILL NORMALLY EXIT SECTOR ABOUT 24 HOURS AFTER ENTERING IT.
7. 1-3 T-80s MAY BE ATTACHED TO SUPPORT DIV RECONNAISSANCE AND CREATE DIVERSIONS.
8. 1 X GSR MAY BE INSSERTED IN THE REAR OF ENEMY FORCES. 2 X GSR ARE TO THE FRONT WATCHING THE MOVEMENT OF COUNTER-RECON FORCES.
9. IN BATTALION DEFENSES, NORMALLY NO DIV RECONNAISSANCE VEHICLES WILL BE EMPLOYED; ONLY 2-3 DRT TEAMS (TRANSPORTED BY REGIMENTAL RECONNAISSANCE).
10. IN LARGER DEFENSES, (REGT AND 2 ECHELONS) ALL DIVISION RECONNAISSANCE ASSETS WILL BE IN SECTOR.
11. LOA OF THE RECONNAISSANCE SCREEN IS JUST SHORT (1-2 Kms) OF THE BLUEFOR LD.

4 x BMP 4 x BRDM-2 6 x DRT Teams 3 x T-80 3 x BRDM-GSR 3 x BRDM JAMMERS 3 x BRDM DF

DIVISION RECONNAISSANCE TEAMS (DRT):

BOTTOM LINE: THE REGT RECON SCHEME OF MANEUVER IS DEPENDENT ON THE SUCCESS OF THE DRT INSERTION THE NIGHT BEFORE.

1. DRTs ARE 2 MAN DISMOUNTED RECON TEAMS INSERTED BY BRDMs.
2. NORMALLY ONLY 6 TEAMS ARE USED AT ONE TIME, BUT AS MANY AS 8 TEAMS COULD BE ACTIVE WITHIN THE MRD SECTOR.
3. DRTs ARE ACTIVE UP TO 2 NIGHTS BEFORE "LD TIME" OR "DEFEND NLT TIME."
4. DRTs PENETRATE AND ASSUME POSITIONS IN THE HIGH GROUND TO OUR FLANKS. FROM HERE, THEY AID IN THE OBSERVATION OF ENEMY BATTLE POSITIONS AND COMMUNICATIONS.
5. DRTs WILL SLEEP DURING HOURS OF DARKNESS WHILE THE BRDMs SCOUT.
6. DRTs HAVE LIMITED NIGHT CAPABILITY (NVGs). HOWEVER, THEY ARE REDCON 1 FROM DAWN TO DUSK.
7. REPLACEMENT DRT TEAMS ARE USUALLY EMPLACED BY HINDS.
8. DRTs ARE EQUIPPED WITH 1X BINOCULAR (20 X 80 MAGNIFICATION), AK-47, AND POSSIBLY ATGM OR SAM SYSTEMS (SA-14 / AT-5).
9. DRTs WILL COMMUNICATE WITH THE REGT RECON, AND WILL USE BREVITY CODES WHEN ADJUSTING FIRE TO REDUCE THEIR RADIO SIGNATURE.

COUNTER-MEASURES AGAINST DRT:

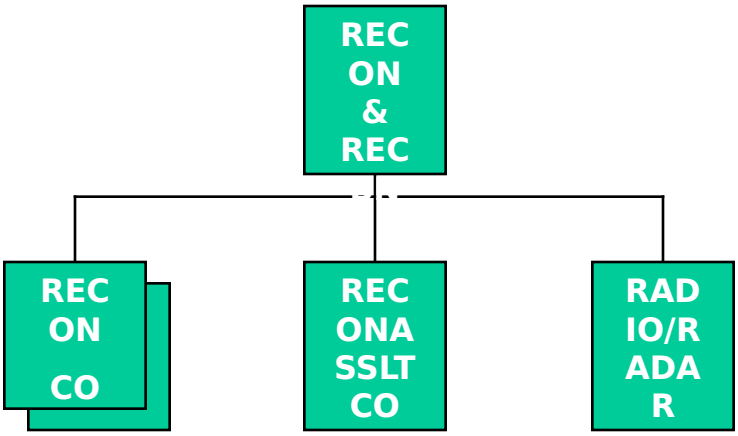
1. HELICOPTER DRT SWEEPS HAVE THE MOST EFFECT
2. INDIRECT FIRE
3. AGGRESSIVE COUNTER-RECON: DESTROY BRDMs BEFORE THEY CAN DROP OFF DRT TEAMS
4. ALWAYS SCAN THE HIGH GROUND, ESPECIALLY IN THE BSA.
5. ACTIVE SECURITY PATROLS
6. RADIO DIRECTION FINDING CAN HELP LOCATE DRTs.
7. **LAST RESORT**: JAMMING DRT NETS CAN DELAY OR DISABLE DRT EFFECTIVENESS!!

PROBABLE DRT LOCATIONS:

1. HILL 1141 (NK 362162)
2. NK 555176
3. NK 562063
4. NK 457046
5. NK 393092
6. NK 549047
7. DIVISION HILL #876 (NK 400124)
8. NK 480090
9. NK 470188
10. NK 470188
11. NK 492967
12. NK 460091
13. CHOD HILL (OP at NK 419096)
14. NK 417166
15. NK 270166
16. NK 301235
17. NK 438165

DIVISION RECON ASSETS

RECON & REC Bn, MRD



- Only 1/3 of actual capabilities portrayed
- 4 BMPs (from Recon Co)
- 4 BRDMs (from Recon Asslt Co)
- 1-2 GSR BRDMS (from Radio/Radar Co)
- 6 x DRT each with AKs, AN/PRC-77, optics (from Recon Asslt Co)
- One MRP of tanks may be attached at discretion of MRR CDR

THREAT RECON
REGIMENTAL RECON

REGIMENTAL RECONNAISSANCE:

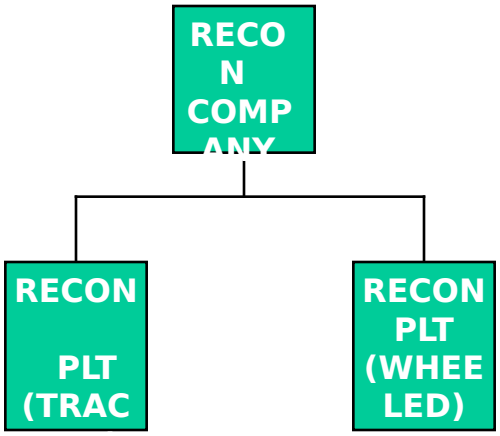
1. USUAL COMPOSITION IS 4 x BRDMs AND 4 x BMPs. AS MANY AS 9 x BRDMs, TO INCLUDE
   1 x ENG BRDM, AND 3 x NBC BRDMs CAN BE DEPLOYED.
2. WILL NORMALLY LD AT DARK OR JUST PRIOR TO FREQUENCY CHANGE AT MIDNIGHT.
3. BRDMs LD FIRST, FOLLOWED BY BMPs APPROXIMATELY 4 HOURS LATER.
4. THE BRDM IS THE PRIMARY RECON VEHICLE.
5. EACH BRDM HAS AN AK-47 (M60 MILES TRANSMITTER) AND A M60 (.50 CAL TRANSMITTER).
6. EACH VEH HAS: 2 x PVS-7s, 1 x REGULAR BINOCULAR, AND 1 x 20X80 BINOCULAR (FOR
   LONG RANGE DESERT SURVEILLANCE).
7. REGT RECON'S SCHEME OF MANEUVER IS DEPENDENT ON THE SUCCESSFUL INSERTION OF
   DRTs.
8. REGT RECON ELEMENTS USE EXCELLENT LIGHT DISCIPLINE AND ARE ADEPT AT REPORTING
   OUR OWN LIGHT SOURCES.
9. REGT RECON MAY AMBUSH OUR TOCs AND BATTLE POSITIONS IN CONJUNCTION WITH THE
   REGT MAIN ATTACK. ATTACKS ARE OFTEN IN CONJUNCTION WITH A DISMOUNTED INFANTRY
   COMPANY AND ARE DESIGNED TO PREVENT THE REPOSITIONING OF FORCES.
10. REGIMENTAL RECONNAISSANCE WILL ONLY FIGHT IF FORCED TO DO SO.

RECONNAISSANCE DETACHMENT:

1. IF THE OPFOR DIVISION AND / OR REGIMENTAL RECONNAISSANCE FAILS, THE COMMANDER
   WILL CREATE AND SEND OUT A RECONNAISSANCE DETACHMENT AHEAD OF THE MAIN BODY
   TO CONFIRM HIS BLUEFOR TEMPLATE AND GET EYES FORWARD.
2. THIS SPECIAL DETACHMENT IS USUALLY PLATOON SIZE AND IS CALLED A FORWARD PATROL.
   IT LOOKS LIKE A CRP, BUT THE DIFFERENCE IN TIMING WILL DISTINGUISH THE TWO.

REGIMENT RECON ASSETS

RECON COMPANY



4 x BMP (Tracked Plt)

4 x BRDM (Wheeled Plt)

1 x GSR (from Recon Plt, MRB)

3 x Rkh (from Chem Plt, MRR)

1 x ERP (from Engr Co, MRR)

SECONDARY RECON ASSETS

- **ADA** - 18 x SA-14
- **RETRANS** - Up to 4 Retrans Teams
- MANEUVER
  - **CRPs/FPs**
  - **TF ANGEL** - 100 x Dismounts w/3 x AT-5
  - **TF DESTROYER** - 100 x Dismounts w/3 x AT-5 / 1 x Mortar Battery
- **CAS** - FAC
- **CDRs RECON**

RECON DETACHMENT (RD)

- **Organization** - up to MRB size (METT-T dependent)
  - **Company size detachment most common.**
- **Mission** - reconnoiter key objectives in depth (**in static situations)**
  - Acquire information
    - Terrain
    - Enemy location or gaps in enemy defenses
    - Confirm Div Recon picture.
- **Timeline** - Linked to LD or defend time
- **Other Key Points-**
  - Employed when Regimental Recon fails to answer a specific PIR or when CBI dictates
  - Requires prior coordination
  - Used during mobile phases of battle on the main axis.

DOCTRINAL RECON MISSIONS

- **MEETING ENGAGEMENT:**
  RD advance on Div main axis, recon patrols cover remainder of sector.
- **ATTACKING A DEFENDING ENEMY:**
  Rgt Recon finds gaps for patrols to penetrate.
- **SECURITY ZONE:**
  Majority of Rgt Recon acts as static OPs in the SZ.
- **FIRST ECHELON DEFENSE:**
  Recon goal is to establish contact with the enemy, patrols pushed forward.

GENERAL MISSIONS

- **Scout Plt BRDMs normally deploy deepest toward enemy.**
- **BMPs generally deployed more shallow.**
- **DRTs generally deployed on hilltops; most survivable asset.**
- **RKh marks false persistent, with a secondary role of reconnaissance.**
- **GSR detects dismounted movement out to 6Km, mounted 10Km.**
- **ERP conducts obstacle reconnaissance and breaching operations (if possible).**
- **EW performs collection / direction finding to cue other recon assets.**

EMPLOYMENT PRINCIPLES DEFENSE

- IPB/Wargaming combined with commander's intent to determine priority sets.
- Chief of Recon confirms sets can observe TAIs and answer PIRs.
- Scout positions focus on BLUEFOR LD and approach.
- Redundancy key to ensure scouts can target enemy and cue special munitions at specific TRPs.

- **Div Recon**
  - » Establish screenline 24-36 hours prior to BLUFOR LD
  - » In MRB defense, normally no Div vehicles employed - only 2-3 DRT teams
  - » Screenline will be out to DAG range
  - » Provides early warning
  - » DRTs provide intel for defense commander, and may recommend fire missions
- **Rgt Recon**
  - » Establish screen 24-36 hrs prior to BLUFOR LD
  - » Screenline out to RAG range
  - » Provide security for 1st-echelon units
  - » Counter-recon uses "looker-killer" technique, BRDMs spot enemy and BMPs make contact
  - » Assist in calls for fire, CAS, FASCAM, and chemical employment
  - » BRDM-2Rkhs may be used to confirm chemical targets
  - » Will engage follow-on CSS, Arty, FAARPs, etc.

EMPLOYMENT PRINCIPLES OFFENSE

- IPB/Wargaming combined with commander's intent to determine priority sets.
- Reconnaissance focus is on potential points of penetration, BPs, the reserve, and where contact is expected.
- Redundancy essential to ensure penetration of counter-recon screen.
- Div Recon must hand off best insertion routes to Rgt Recon.
- Incorporate all assets: scouts, GSR, RKh, ERP, ADA, Augmentees/LNOs--all operating on INTEL net.
- **Div Recon**
  - » Movement
    - » No set pattern or time lines used (CDR driven)
  - » Recon 3-4 routes
  - » Perform general reconnaissance
  - » May be asked to raid/harass BLUFOR rear area assets while exiting sector
  - » Dismounted Reconnaissance Teams
  - » BRDMs and BMPs work a general axis together
  - » Tanks, if attached, follow behind - called up if counter-recon screen too strong
  - » BRDMs enter sector first, if unable to bypass enemy, BMPs will come to destroy/distract while BRDM continues

EMPLOYMENT PRINCIPLES OFFENSE, continued

- Dismounted Recon Teams
  - » DRTs are 6 x 2 man dismounted teams carried in BRDMs
  - » Dropped in sector as BRDMs push deeper
  - » Move to High Ground
  - » Observe BLUEFOR for the remainder of battle
  - » May carry SA-14
  - » Provide KRASNOVIAN with 80% of its recon info
  - » **DRTs killed if BRDM is killed - HPT!!!!**
  - » **DRT Tasks**
    - ID enemy anti-tank/tank reserve
    - ID BSA
    - ID CPs/BPs
    - ID obstacles/unit boundaries
    - Recon terrain along avenues of approach
- **Rgt Recon**
  - » Enters sector no earlier than 12 hours prior to main body LD
  - » Recons 3-4 routes
  - » Verifies main axis vs secondary
  - » Performs detailed reconnaissance
  - » Recons and/or breaches obstacles (Deception?)
  - » Assists in calls for fire
  - » More aggressive than Div Recon
  - » Confirms/develops Div's intel picture

EMPLOYMENT PRINCIPLES OFFENSE, continued

- Rgt Recon,continued
  - » BRDMs LD first, followed by BMPs
  - » Operate like Div Recon- BMPs support BRDMs
  - » Engineer and chemical BRDMs LD late (survivability)
  - » All assets coordinate to verify point of penetration
  - » DRTs in sector guide Rgt vehicles to priority NAIs
  - » Rgt may dismount OP teams for local R&S
  - » Will not go to exact locations that Div set
  - » Collect BDA on Phase I and II fires, critical for CDR's option packet

- **Recon Time Line**
  - » Div recon enters sector 24-36 hours prior to mission
  - » Div recon allowed to LD at COM + 6 hours
  - » Regt recon in sector 9-12 hours prior to mission
  - » Upon Regt LD, Div recon has 6 hours to exit sector (simulates subsequent mission) - DRTs stay in sector

LOCATING/NEUTRALIZING COLTS

- **Template COLT/OP locations based on LOS to BPs, Decision Points and Choke Points.**
- **Update template with confirmed BLUEFOR flight paths, touchdowns, EW intercept/DF.**
- **SOKOL remains the most effective means of locating/killing COLTs.**
- **QRF / ADA used to react to confirmed reports and patrol likely COLT sites when SOKOL is off station.**
- **Aerial TAIs imperative to FRAGO SOKOL conducting DRT sweeps; even in absence of air threat.**
- **COR and FSO fire anti-COLT missions (confirmed and templated).**

COUNTER-RECONNAISSANCE PRIORITIES

- **MRB security force** is key element of counter-recon.
- BMPs primarily conduct reconnaissance, but may be used as security force.
- BRDMs and DRTs conduct reconnaissance.
- **ADA/RECON/MRB assets all operate on INTEL net.**

Recon Tie In

- Div COR sets enemy possible template
- Div Recon develops intel picture
- Rgt Recon confirms or develops (if gaps present) intel picture
- Battalion Recon is final confirmation on current situation

RECON STRENGTHS

- Thorough knowledge of terrain
- Habitual working relationship
- Unity of command at platoon through regiment, focusing on maneuver CDR's intent.
- Maintain effective communication
- Executes a unified recon plan, with centralized command and control of assets, concentrating all information through a single staff section.

511th MI Company

- **Mission:**

» To provide timely, accurate Electronic Warfare, Reconnaissance, and Ground Surveillance Radar support to the Commander, 11th ACR and 60th Guards Motorized Rifle Division

» **Operations Platoon**

- Integral component of R-TOC
- Provides EW analysis and liaison support to 32nd GMRR and 125th GTR during rotation

» **Recon Platoon**

- Ground Surveillance Radar support
- Provides Chemical Recon support
- MTOE provides 4 teams, may field up to 5 GSR teams and 3 RKh teams per rotation
- Equipment
  - 5 x PPS-5 GSRs
  - 8 x VISMOD BRDMs (5 for the GSRs, 3 for the Rkhs)

» **Collection Platoon**

- Radio Intercept support
- Radio DF support
- MTOE provides for 3 Collection Teams
- Can field up to 5 systems for specific rotations
- Equipped with TRQ-32
  - LQS

511th MI Company

» Jamming Platoon
  - Electronic Attack support
  - Radio Intercept support
  - MTOE organized for 3 teams, may field up to 5
  - Equipment
    - 3 x TLQ-17A , 3 more to be fielded
      - LOS
    - 3 x OG-181 Mobile ECM set (in phase out)
    - 2 x XM-330 Simulated Threat ECM set

- **REC Employment**

» **Offense:**
  - Deployed **behind Regt Recon/forward of Regt main body**
    - Movement
    - Emplacement time
  - **Up to 5 km forward of OPFOR LD**

» **Defense: Behind MRC BPs**

» **Outside Regt Boundries/within Division Sector**

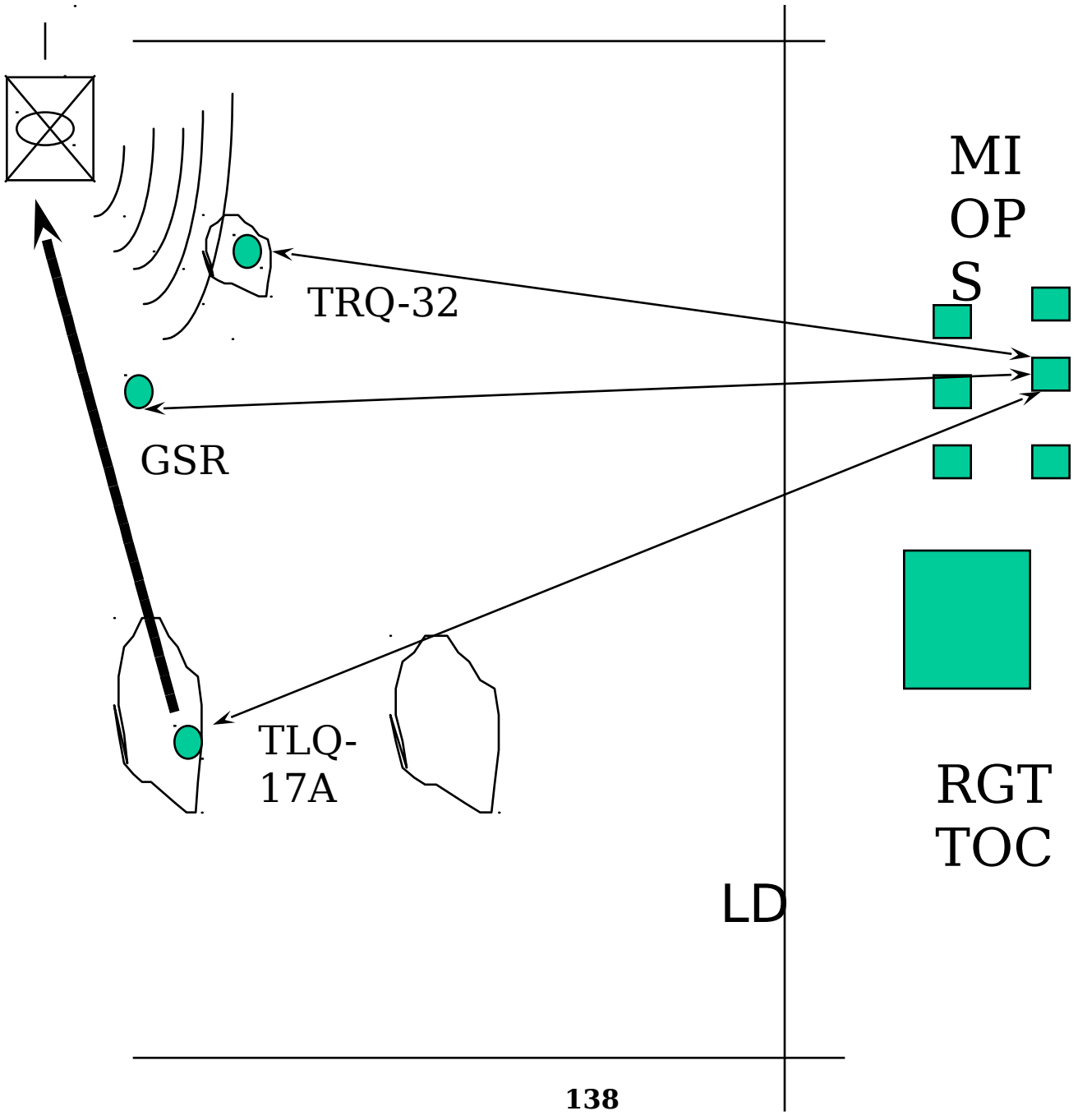
» **Operational upon RBE**

- **Specialized Employment**

» **Low Level Voice Intercept (LLVI)**
  - Based on CBI
  - Inserted with Recon
  - Other employment guidelines still under review

511th MI Company

View of TRQ 32, TLQ-17A and GSR



THREAT ARTILLERY DEPLOYMENT

- **BN SET UP**:
  - GUNS: Triangle formation (see graphic) with 3 x batteries at the points in a forward or reverse wedge; 500-1500 m between batteries
  - FDC located inside the triangle (200-300m from the battery)
  - Wire is used for communication between the batteries
  - MRLs: 60 m between RLs; 1000-2000 m between batteries
  - Same formation is used in both Offensive and Defensive Operations
- **BATTERY SET UP**:
  - GUNS: 2 x PLTs of 3 guns each; usually form straight lines, but can vary from a wedge to "W" to an arc with battery frontage of 300 m and depth of 110 m
  - MRLs: usually on-line with 300 m frontage; in defense can be fired remotely 60 m away
- **FIRING POSITIONS**:
  - **Offense:** Primary/Alternate/ Temporary (1-2km forward)
  - **Defense:** Primary/Alternate/ Temporary (1-2km forward) & Dummy (fully camouflaged with decoys)

AG / DAG COMPOSITION / EMPLOYMENT

- **RAG:**
  - **SIZE:** 1 x 2S1 Bn (18 tubes)(122mm) Range: 15.3 km (Organic to MRR)
    2 x 2S3 Bn (24 tubes)(152mm) Range: 17.2 km (From Div)
  - **EMPLOYMENT:**
    Offense: 1-4 km behind the FEBA
    Defense: 3-4 km behind the OPFOR BPs
    Travels between 1st and 2d echelon MRBs
- **DAG:**
  - **SIZE:** 1 x 2S5 Bn (18 tubes)(152mm) Range: 28 km (Organic to Div)
    1 x BM21 Bn (18 RLs)(122mm) Range: 20.3 km (Organic to Div)
    If DAG is 6 x Bns or more, then it could split into 2 DAGs
  - **EMPLOYMENT:**
    Offense: 3-4 km from the FEBA
    Defense: 7-10 km behind OPFOR BPs
    Travels between the 1st and 2d echelon MRR

THREAT ARTILLERY WEAPONS RANG

WEAPON SYSTEM	LOCATION	RANGE	RAP RANGE	MUNITIONS
60mm MORTAR		3500m	N/A	HE, SMK
82mm MORTAR		3050m	N/A	HE, SMK, ILL
120mm MORTAR		7200m	N/A	HE, SMK, ILL, CHEM
2S1	RAG	15.3km	20km	HE, SMK, ILL, CHEM
2S3	RAG / DAG	17.2km	20.5km	HE, SMK, ILL, CHEM, RAP, FASCAM
2S19	DAG	30km	40km	HE, SMK, ILL, CHEM, RAP, FASCAM
2S5	DAG	28km	33km	HE, SMK, ILL, CHEM, RAP, FASCAM
2S7	AAG	37.5km	50km	HE, SMK, ILL, CHEM, RAP, FASCAM
BM-21	DAG	20.3km	30km (EXT)	HE, SMK, CHEM
BM-22	AAG	35km	40km (EXT)	HE, SMK, CHEM
FROG	AAG	70km	N/A	

BM21

2S1

THREAT ARTILLERY MOVEMENT

1/3 Rule = when OPFOR attacking troops have moved forward enough that their artillery can only range **1/3** of its max range to their front, then **1/3** of the artillery formation will bound alternately

Redeployment is by battalions whenever possible; with a typical bound being **5-10 km long**

In the offense, an artillery battalion bounds its batteries forward individually by **3-4 kms**

DISPLACEMENT:

Daytime - 35 min from order to move until the first round is fired
Nighttime - 45 min
10 min to leave current location and move into march column formation

MARCH COLUMN: 25-50 m between vehicles; 100 m between batteries; Bn occupies 1.5 - 2.5 km of road space

SPEED: Doctrinal speed is 30 kph in day; 25 kph at night

ROE:

2S1
Displace = 5 min
Movement = 2 kph
Occupy = 5 min
Rate of fire = 3 rounds per min per tube

2S3/2S5
Displace = 5 min
Movement = 2 kph
Occupy = 5 min
Rate of fire = 2 rounds per min per tube

BM21
Displace = 10 min
Movement = 3 kph
Rate of fire = 2 rockets per second or 20 seconds per launcher (40 rockets)
Reload time = 8 min
The BM21 must displace after each mission which takes it out of commission for 20 min

THREAT ARTILLERY (ROE)

- Artillery at the NTC is NOTIONAL but LETHAL
- Currently no real visual signature for artillery; 2S1 VISMODs are gone
- Our Q36/37 hits and counterfire account for most OPFOR artillery kills
- ROE says if BLUEFOR has eyes on where the artillery "would be" and we had the assets to target them, then the OCs will adjudicate the kills, so it is still very important to template the RAG/DAG and gain intelligence on their locations
- If given the mission to destroy RAG/DAG then there will be a visual signature
- Some associated **clues to RAG/DAG location** are:
    - location of the **ASET IV C3 vehicle will be center of DAG**
    - BM-21 located on the battlefield
- **When Q36/37 says 2S7 fired - look for TF ANGEL insertion 15-45 min later**

THREAT ARTILLERY FASCAM

- 400 x 400m (600 m spillover) mine field (low/medium/high density)
- OPFOR is normally given 1-2 FASCAM per separate mission (i.e. 1-2 for MRR and 1-2 for FD)
- FASCAM initiated by 3 airbursts and 1 yellow smoke grenade
- May last up to 5 hours
- Cannot be breached by hand
- May be combined with persistent or non-persistent chemical strikes

- **FASCAM in the Regimental Attack**
    - Used to block lateral repositioning, block route of reserve, or protect flanks
    - Smoke or conventional artillery fired to conceal nature of artillery strike

- **FASCAM in the OPFOR Defense**
    - Used to close breached obstacles, separate attacking echelons, protect flanks, and in chokepoints

Artillery Support

- **No 2S1 VISMODs**
- Currently all **notional**, with effects calculated in NTC-IS and portrayed using **fire markers, SAWE**
- Includes mortars, Regimental SP howitzer battalion, and support from notional higher echelons

- **NTC-Instrumentation System**
  - » NTC-IS includes an array of computers, emitters, relays, sensors
  - » For artillery: SAWE, IFCAS (Indirect Fire Casualty Assessment System)
  - » Planning begins with Combat Battle Instructions, or **CBI allots number of battalions/tubes/ammunition**
  - » RCA after wargaming plans targets, special munitions, priorities of support
  - » CRTA actual responds to requests during the battle and "controls fires" to observe "real" limitations (ammo, rate of fire, tubes destroyed, effects desired, etc.)
- **AAG/DAG/RAG Displacement**
  - » **Survivability moves after each fire mission**
  - » **If counter battery is not good**
    - may accept risk and stay in place for either:
      - – 2 x fire missions
      - – 5 mins

Artillery Support

- **Krasnovian Artillery Planning Considerations**
  - » Doctrinal positions:
    - open, flat areas
    - wadis
  - » Krasnovian artillery uses same BLUEFOR TTPs
    - intervening crests/slope/cant/site to crest
  - » Computer makes the use of terrain less important
    - It does not account for the vertical variations in terrain (two-dimensional)
    - Planners use METT-T as realistically as possible

- **Generic Artillery Capabilities**
  - » Shells:
    - Base Bleed Projectiles (BBP)
      - – Have **near RAP ranges**
    - RAP ranges used only if RAP is fired
- **2S19 Capabilities (Countering the M109A6 Paladin)**
  - » Krasnovian artillery weapon of choice
    - BBP **max range of 30 km**
    - Versus the (2S1)
      - – **1 minute displacement** (7)
      - – **3 minute/km move** (3)
      - – **2 minute emplacement** (10)
  - » Trying to acquire them to replace aging 2S1s

Artillery Support

- **Rolling Barrage Fires Considerations**
  - » **Rarely used**
    - **Prep fires**
    - **METT-T**
    - **Counterfires**
      - – BLUEFOR radars and MLRS are highly effective
      - – Manuever commanders not willing to accept the risk
  - » **Alternative**
    - **Fire large linear targets with BM-21s**
      - – **one battery covers 200m x 600m**
- **FASCAM:**
  - » not doctrinal
  - » **limited** by the computer to **200m x 800m or 400m x 400m**
  - » medium density minefield
    - **96 AA rounds/24 AP rounds**
  - » All preplanned; 30 min strikewarn
  - » May be fired on-call or exactly on time hack
  - » Fire marker controller at Werewolf TAF sends marker at appropriate time
  - » **Yellow smoke**
  - » Assessment is difficult due to MILES I/II mix, some manual assessment necessary if SAWE doesn't pick it all up

Artillery Support

- **ARK-1**
  - » Capabilities:
    - **22 Km max range**
    - Employed on a cueing schedule
      - – Radiates 10 seconds, off 50 seconds
      - – 90 minutes before exceeding max radiation time
  - » Limitations:
    - Must be within **15 Km for accurate targeting** (at least 1 target per que)
    - No such thing as priority targeting
    - Cannot see MLRS
    - Must see the projectile's ascending arc to track it accurately
  - » Employment strategies:
    - Division level asset
    - Use the division's boundries
    - **Look from the regiment's flanks**
    - Track from 45-90 degree angles
    - Never head on
- **OPFOR Artillery Reconstitution**
  - » Tubes
    - 100% reconstitution at midnight
  - » Ammo
    - CBI
      - – Midnight: normal
      - – COM / CTM: if continous opns
    - Emergency resupply
      - – One unit of fire per battle
      - – Permission of the division commander

THREAT ARTILLERY

Phases of Offensive Fire Support

PHASE I: FIRE SUPPORT FOR THE MOVEMENT FORWARD

- Supports movement from the **AA to the LD; Div recon calls and DAG fires**
- Ends when maneuver units are ready to deploy into BN column
- May include chemical (Persistent or Non-Persistent) or FASCAM on CO TM BPs
- CAS is used on units in the main avenue of approach as well as reserves

PHASE II: FIRE PREPARATION FOR THE ATTACK

- Begins **20-30 minutes** prior to attacking forces reaching FEBA; as Rgt hits LD
- DAG fires and should suppress and/or destroy defending enemy
- Lasts until assault is no farther than 10 minutes from FEBA; can be repeated
- CAS is used on units in the main avenue of approach as well as reserves
- Non-persistent chemicals used on units in the main avenue of approach

PHASE III: FIRE SUPPORT OF THE ATTACK

- Begins when the maneuver units begin assaults; immediately after Phase II
- RAG and DAG support calls for fire
- Continues with maneuver units advance through enemy defensive positions
- 2-4 minute intervals between shifting of fires and attack by forward troops

PHASE IV: FIRE ACCOMPANIMENT

- Fired as forces move through the defense; RAG and DAG support on-call fires
  Includes coordinated air strikes; lasts until mission complete

THREAT ARTILLERY SUPPORT TO COMBAT FORMATIONS

When anticipating a meeting battle or the intelligence picture of BLUEFOR is poor, the MRR organizes its lead Bn in an Advance Guard (AG).

Forward Detachment (FD) operates under Div Cdr control independent of MRR. Purpose is not to fight but to reach its objective (usually key terrain) with combat power in tact. FD usually moves in an AG formation.

Forward Detachment (FD)

- **Offense**
    - **1 x Battery** marches in the **FSE** of the FD 5-10 km behind the lead element (CRP)
    - **1 x Battery** marches in **FD main body** 5-10 km behind the FSE
    - If FD is employed in same battle as MRR attack; then 6 x 2S1 and/or Bn of 2S3
    - If FD is a separate mission; the RAG, DAG and 1 x FASCAM may support the FD
- **Defense (Security Zone 10-15 km forward of MDA)**
    - 1-2 x Bn 2S1 attached
        - one group behind reserve used in direct fire (AT) role if needed
        - one group behind next position for continuous fire during withdrawal from first position to next position
    - MDA artillery may move forward of MDA to support FD

FSE of AG formation

- FSE is 10-15 km ahead of AGMB
- 6 x 2S1
- Howitzers in direct fire blocking BLUEFOR routes of advance

AGMB

- AGMB is 20-30 km ahead of Regt MB
- 6 x 2S1
- conduct flank or envelopment; concentrate on one Co at a time

Artillery Support

- **Meeting Battle**
  - » Frequently
    - Push artillery foward of LD
      - To support the FD or ED
      - Before the main body's LD time
  - » Usually
    - Survivability moves only
    - Move when out of 2/3s range artillery coverage

» **FIRE SUPPORT COORDINATION**

- RAG
  - moves behind lead MRC or larger
  - may fire 15 minutes after lead unit passes emplacement position
- DAG
  - moves behind the Regimental main body
  - may fire 15 minutes after lead unit passes emplacement position
- BOTH
  - move at 20 kph up to the RL/LD

Artillery Support

- **Rgt Attacks:**
  - » Frequently
    - Push artillery foward of LD
      - – To support the FD or ED
      - – Before the main body's LD time
  - » Usually
    - Survivability moves only
    - Move when out of 2/3s range artillery coverage
  - » RAG/DAG
    - May fire from positions up to the RL/LD before LD time
      - – NET LD-2
      - – DTOC notified NLT 12 hours prior
        - Planned initiation time
        - Composition of unit firing
        - Route of march
        - Planned position
        - Target priorities
    - May fire from positions forward of RL/LD before LD time
      - – Same as above
      - – Must have a 3/8 security force positioned within 3 km

THREAT ARTILLERY
Phases of Defensive Fire Support

PHASE I: COUNTER-PREPARATORY FIRES
- Surprise! Div recon calls; DAG (combo with air) fires prior to our prep fires
- Purpose is the annihilate or neutralize our combat power prior to our attack

PHASE II: FIRE INTERDICTION OF ADVANCING AND DEPLOYING TROOPS
- Begins when we deploy into BN column and continues to LD
- Purpose is to force us to deploy early; may include FASCAM and chemical
- DAG begins fires; RAG fires as called by REGT recon and CSOPs
- Arty fires from temporary positions or roving battery to deny the BLUEFOR intel
- If a defense in contact;, this phase concentrates on 2d echelon

PHASE III: FIRE TO REPEL BLUEFOR ATTACK
- **Most important phase!** Coordinated with AT fires; RAG and DAG fires
- Missions last 15-20 minutes, then guns displace to alternate positions
- Begins when we LD and ends when we enter the first defensive positions
- Creates zones of continuous fires in front of the defense

PHASE IV: FIRE SUPPORT OF DEFENDING TROOPS
- Begins when we breech the defense; DAG, RAG, and mortars fire
- Creates fire sacks to destroy us and prevent further development of our attack
- Selected 2S1 batteries go into direct fire mode from prepared direct fire positions

PHASE V: FIRE DESTRUCTION OF BLUEFOR DURING COUNTERATTACK
- To recover lost terrain; destroy us; establish a front line to launch an offensive
- Supports commitment of the REGT Combined Arms Reserve (CAR); sub-phases
    1 - Support to the forward movement of troops
    2 - Preparation of the counterattack
    3 - Support of the counterattack

NOTE: CAS will always be included during all phases of Defensive Fire Support.

Artillery Support

- **ARTILLERY RAIDS**
  - » In defense
  - » Forward of FEBA
  - » Target HPTs
  - » Must notify DTOC NLT 4 hours prior
    - Planned initiation time
    - Composition of unit firing
    - Route of march
    - Planned position
    - Target description
  - » Must have 3/8 security force postitioned within 3 km

- **TIPS FOR BLUEFOR**
  - » **YOU WILL DIE IF**:
    - You stay on roads
    - You stay near easily identified terrain features
    - You don't use the flats
  - » Pay attention to/know the OPFOR phases of fire
  - » The BLUEFOR FDC's M577 = OPFOR HPT

- **FUTURE DEVELOPMENTS**
  - » 18 2S3 VISMODS currently being made by TASC
    - Completion of project by 1 Nov 96
    - 2S3 Turret with 2S1 Hull
  - » Will be outfitted with **"receiver" MILES**
  - » **No MILES weapon system**

THREAT ARTILLERY
CHEMICAL AGENT USE

BOTTOM LINE:

- USE OF CHEMICAL AGENTS BY THE THREAT IS REAL AND SHOULD BE EXPECTED
- THREAT DOCTRINE SAYS THAT 1 OUT OF EVERY 6 ROUNDS FIRED WILL BE CHEMICAL

USE: OFFENSE

- PERSISTENT AGENT-
  USED TO BLOCK THE REPOSITIONING OF OUR RESERVES AND TO FIX A BYPASSED FORCE
- NON-PERSISTENT AGENT-
  USED TO OFFSET THE SUPERIOR TECHNOLOGY OF THE BLUEFOR, THE THREAT WILL ATTACK THROUGH NP AGENT
  OPFOR TIMES THE USE OF NON-PERSISTENT AGENT SO THAT IT WILL HAVE DISSIPATED PRIOR TO THEIR ENTRANCE INTO THE ENGAGEMENT AREA

USE: DEFENSE

- PERSISTENT AGENT-
  USED TO 1) PROTECT THEIR EXPOSED FLANKS, 2) BLOCK OUR AVENUES OF APPROACH, AND 3) ACT AS A CANALIZING OBSTACLE TO FORCE BLUE FORCES INTO MORE ADVANTAGEOUS TERRAIN
- NON-PERSISTENT AGENT-
  USED TO DISRUPT OUR ATTACK AND BREAK CONTACT FOR THEIR SECURITY ZONE

R.O.E. FOR PERSISTENT AGENT:

AIR TEMP (*F)	DURATION (HRS)
32-50	18-24
51-68	12-18
69-86	06-12
87+	UP TO 6

- KRASNOVIANS USE THE 2S3 AS THEIR PRIMARY CHEMICAL DELIVERY WEAPON
- A 10 MINUTE FIRE RATE IS REQUIRED TO CONTAMINATE A 300M DIAMETER AREA
- A BN MUST FIRE FOR 20 MIN TO FIRE FOR R.O.E.
  -999 ROUNDS ARE REQUIRED TO CONTAMINATE A 1500M DIAMETER AREA WITH PERSISTENT AGENT
  -NON-PERSISTENT AGENTS REQUIRE LESS ROUNDS TO MEET REQUIRED CONTAMINATION, AND WILL FIRE UP TO 6 TARGETS. TIME REQUIRED TO FIRE 1 TARGET IS 10 MIN
- **NON-PERSISTENT TARGETS:**

TARGET	SIZE (METER DIAMETER)	BLISTER (Rds)	NERVE/BLOOD (Rds)
CP (TOC)	100	14	06
CO LAAGER	400	56	12
CO BP	1500	210	90
PLT BP	600	84	36

THREAT NBC

NUCLEAR: Not played at NTC
BIOLOGICAL: Not played at NTC

CHEMICAL WEAPON CLASSIFICATIONS:

Persistent:

- Duration: Can last up to 24 hrs
- Nerve:
  - Soman GD
  - VX
- Used to shape the battlefield
- **Never employed on OPFOR axis of advance**

- **Offensive employment**
  - Emplaced 3-4 hrs prior to crossing LD
  - Protect flanks
  - Deny key terrain
  - Fix BLUEFOR reserve
  - Used beyond subsequent objective

- **Defensive employment**
  - Protect flanks
  - Block avenues of approach and canalize enemy into firesacks
  - Deny key terrain
  - Used as another obstacle
  - ROE: The computers use terrain, weather, and temperature to determine the duration of agents

AIR TEMP	DURATION OF AGENT
32-50 F.	18-24 HRS.
51-68 F.	12-18 HRS.
69-86 F.	06-12 HRS.
87+ F.	UP TO 06 HRS.

THREAT NBC (CONTINUED)

CHEMICAL WEAPON CLASSIFICATIONS (CONTINUED):

Non-persistent:

- Duration: 15-30 min.
- Nerve: Tablin GA / Sarin GB
- Blood
- Blister
- Choking
- Incapacitants
- Irritants
- CS or white smoke will simulate non-persistent agents
- **Offensive employment**
  - Timed so OPFOR can attack through an engagement area, unmasked, as the agent dissipates
  - May try to deceive BLUEFOR by using non-persistent on flanks instead of persistent, then attack on that route
- **Defensive employment**
  - Disrupt and delay BLUEFOR during movement from LD
  - Disrupt and delay BLUEFOR during penetration of the 1st echelon
  - Used in final defensive fires
  - Covers the withdrawal of security zone elements

DELIVERY MEANS:

- Non-persistent rounds fired by **152 mm**.
- The Krasnovians use the **2S3**'s as their chemical delivery means. They have a fire rate of 10 min for every 300 meter diameter circle of chemical agent. It takes a Bn about 20 min to fire ROE-required contamination.
- It takes 999 rounds to contaminate an area 1500 m in diameter (**persistent**).
- **Non-persistent** agents require fewer rounds for required contamination. OPFOR will fire six targets. Time to fire a single target is 10 min.

TARGET	SIZE (METER DIAMETER)	DURATION (BLISTER)	DURATION (NERVE/BLOOD)
CP(TOC)	100	14	06
CO LAAGER	400	56	12
PLT BP	600	84	36
CO BP	1500	210	90

CHEMICAL PROTECTION PLATOON:

The headquarters section consists of one officer and two enlisted. The total platoon contains 24 troops. It consists of three chemical reconnaissance squads with one **BRDM-2Rkh** per squad, and four decon squads with one **ARS-14** per squad. The NTC OPFOR portrays only the chemical recon squad.

NBC and Smoke Operations

- **Nuclear / Biological weapons**
  - currently not in use
- **Chemical weapons:**
  - -- NP at key points
  - -- P to protect flanks
- NBC produces rapid changes to portions of battlefield
- Forces training in protection, recon, decon
- Dispersion and mobility considerations critical during planning process
- NBC produces rapid changes to portions of battlefield
- Forces training in protection, recon, decon
- Dispersion and mobility considerations critical during planning process
- **Key Method of Shaping the Battlefield**
- **Special Munitions**
  - Coordinated with overall engineer plan
  - Persistent chemicals or nonpersistent chemicals, FASCAM, smoke
  - **P-chem on flanks or to deny entire AA**
  - **Non-p to harass, degrade**
- NBC Recon assigned to the MI Company in the form of

  BRDM-Rkh

NBC and Smoke Operations

- **GENERIC ARTILLERY CAPABILITIES**
  - » P-CHEM (weapon system - diameter/required rounds):
    - BM-21 - 1100-1300m/720 rounds
    - 122mm - 1100-1300m/650 rounds
    - 152mm - 1300m/650 rounds
    - 203mm - 1500m/650 rounds
  - » NP (radius/required rounds):
    - 125m/35 rounds per target
    - NTCism: **will drift** but will not spread latterally

- **Chemical Agents Employed by Krasnovians**
  - » Non-Persistent Agents
    - Nerve: G-Series
    - Blood
    - Choking
    - Psychochemical
    - Irritants
  - » Persistent Agents
    - – Nerve: V-Series
    - – Blister: H

NBC and Smoke Operations

- **Employment of Chemical Munitions**
  - » Release authority
    - – P-Chem first use release authority is Division Commander
    - – Subsequent chemical fires release authority is Regimental Commander
  - » Chemical munitions employed with smoke
  - » Smoke used as deceptive chem strike
- **AAG**
  - » Fires P-chem
    - If planned 12 hours prior
    - Suffers no counter-battery attrition
- **DAG/RAG**
  - » Conventional fires
  - » Fires non-persistent chem
    - Distance depends on wind
    - Counter-battery attrition based on accuracy of counter-fires

THREAT SMOKE

Smokescreening: The creation and maintenance of an obscuring cloud for a specified period to make it impossible for the enemy to fire at targets, conduct observations, and detect the true disposition of troops. Smokescreens are employed linearly or over a wide surface area.

The OPFOR use smoke extensively with excellent effectiveness.

- Smoke blocks beams. Even though BLUEFOR may see OPFOR with thermal sites, it is difficult for them to engage.
- Specifically, smoke can be used to accomplish the following:
    - Deny intelligence by obscuring actual and deceptive unit areas or use survivability smoke at any time when under direct or indirect fire
    - Reduce the effectiveness of BLUEFOR target acquisition
    - Disrupt BLUEFOR movement, operations, and command and control
    - Create conditions to surprise
    - Deception
- OPFOR will also employ flares and/or projected white phosphorus munitions to degrade night vision devices, especially those of BLUEFOR **attack helicopter** pilots engaged in night operations

CAPABILITIES

- Artillery and mortars
  7-10% of artillery fired are allocated to smoke operations
- TDA-M
  OPFOR has 4 x TDA-M's
  2 x TDA-M's can produce a 1 km smokescreen
  OPFOR will usually deploy 2 at a time
- Smoke pot
  Primarily used in defense or during breach operations
  Used to protect flanks from air or bypassed enemy
  Replicate artillery smoke fires
- Grenades: Five types used by BLUEFOR and OPFOR
  Red: Mark Medivac pickup zone
  Yellow: Mark FASCAM
  Green: Obscure and mark breach sites
  Violet: Signal unit as friendly
  White: Obscurant and simulate chemical weapons
- T-80's / BMP's also have on board vehicular smoke

THREAT SMOKE

OFFENSIVE EMPLOYMENT

- Placed 100-200 meters forward of BLUEFOR defense on attack axis
- Placed on planned breaching site
- Deception smoke to deceive OPFOR's attacking intent
- Smoke can screen the OPFOR while an attack is carried out
- Concealing movement of forces and equipment
- Screening locations of passages through barriers
- OPFOR may counterattack or maneuver in BLUEFOR smoke

DEFENSIVE EMPLOYMENT

- To blind BLUEFOR OP's
- Slow the advance of a BLUEFOR attacking force
- Isolate BLUEFOR elements to permit concentration of fire and counterattack or repositioning of forces and its reserve
- Degrade the performance of BLUEFOR MILES
- Conceal engineer activity

PRINCIPAL USES OF SMOKE

- Camouflage
  Used when OPFOR deploy into attack formation
  2 - 3 times larger than frontage troops occupy
  Point targets: 15 times larger than area occupied

- Blinding
  Used on or in front of BLUEFOR
  Blind BLUEFOR gunners
  Artillery or mortar delivered

SMOKE PERSISTENCY

	WIND SPEED			
TARGET SIZE (m)	5 KPH	10 KPH	15 KPH	20 KPH
50	36 sec	18 sec	12 sec	9 sec
100	1.2 min	36 sec	24 sec	18 sec
150	1.8 min	54 sec	36 sec	27 sec
200	2.4 min	1.2 min	48 sec	36 sec
500	6 min	3 min	2 min	1.5 sec
700	8.4 min	4.2 min	2.8 min	2.1 min
1000	12 min	6 min	4 min	3 min
1500	18 min	9 min	6 min	4.5 min
2000	24 min	12 min	8 min	6 min

NBC and Smoke Operations

- **Krasnovians use smoke extensively**
  - » **Toxic and neutral smoke**
  - » Types of smoke screens:
    - Blinding - Maneuver smoke mission
    - Camouflaging - Static smoke mission
    - **Decoy/Deception**
- Methods for Placing Smoke
  - » **TDA-Ms** (smokers) currently assigned HHT / RSS and attached to rotational squadron
  - » **Fire Markers** from Werewolf TAF
  - » **Smoke pots / grenades carried by crews** for supplemental purposes

TDA-M VISMOD

DESCRIPTION:

- **Looks like a “khaki ice-cream truck.”**
- **Used in pairs, each pair can produce a 1 km smoke screen.**
- **Expect the OPFOR to use them during their breach during an attack..**
- **The OPFOR may use them to conceal movement of the reserves.**

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THREAT CAS / AVIATION

A. IVAN

- **GENERAL:**
  - Code word for fighter jets and forward air controllers.
  - The aircraft used will replicate assets from Frontal Aviation.
  - During battles, IVAN will be in communication with the regimental Air Direction Officer (ADO), or the S-3 Air, to receive target location and priority.

- **PRIORITY OF ENGAGEMENT:**
  - Tanks
  - BFVs
  - Command and Control Assets
  - Support Elements (When there are deep strikes on a BSA and TOCs, these missions have priority)

- **OFFENSIVE MISSIONS:** During offensive operations, IVAN will target concentrations of tanks and BFVs at the expected point of penetration, then identified reserves.

- **DEFENSIVE MISSIONS:** During defensive operations and meeting battles, IVAN will target lead concentrations of tanks then second echelon formations.

B. SOKOL

- **GENERAL:**
  - Code word for HIND-Es, VISMOD UH-1 helicopters.
  - SOKOL replicates assets from the MRD helicopter squadron.
  - During operations, two SOKOL aircraft will fly the mission and may carry up to 16 AT-6 SPIRALS.
  - SOKOL pilots will communicate with the Regimental ADO for all target priorities.

- **OFFENSIVE MISSIONS:** During offensive operations, SOKOL will provide:
  - Flank security for the regiments main body
  - Air support at the point of penetration
  - May target the BLUEFOR reserves

- **DEFENSIVE MISSIONS:** During defensive operations, SOKOL will:
  - Be held in reserve and committed on order of the Regimental Commander with other reserves to destroy penetrations
  - Fly DRT sweeps under the control of the ADO in conjunction with the Chief of Reconnaissance Troops and electronic warfare assets

- **AIR ASSAULT MISSIONS:** During actual Air Assault Missions, SOKOL will fly armed escort for the troop-carrying aircraft.

IVAN

- AIR STRIKE TARGETS
  - » Point Target - Rocket Launcher, Tank, APC, Radar Site
  - » Multiple - Group of 10-20 Single Targets
  - » Line - March Column, Train, Runway
  - » Area - Assembly Area, Supply Depot, Large C^2

- **RULES OF ENGAGEMENT**
  - » IP Check In - Release From Sundance To Ivan Control
  - » Must Brief Nine Line for Each Sortie
  - » Ingress / Egress - 50% In Sector
  - » **Effectiveness Based on Enemy ADA Coverage**
- **ENEMY ADA THREAT**
  - » Aircraft Regeneration at IP
  - » ADA Threat Determined by Raven 07 to Facilitate Air Force Training
  - » High Threat
    - Low Flying Aircraft
    - Limited Loiter Time
  - » Low Threat
    - High Flying Aircraft
    - Longer Loiter Time

IVAN, continued

- **BATTLE DAMAGE ASSESSMENT**
  - » Air Warrior Measurement and Debriefing System (Heads Up Display)
  - » Joint Munitions Effectiveness Manual - Lizard dice roll
  - » 50% Rule Applies to CAS - Based on O/C on the ground

- **NIGHT CAS**
  - » Emerging Air Force Doctrine
  - » 549th Combat Training Squadron (Air Warrior) is Air Force Proponent for Night CAS
  - » Allows for Day / Night, All Weather Close Air Support
  - » Equipment Fielding Or Going

- **DEFEATING NIGHT CAS**
  - » Light Discipline
  - » Dispersion
  - » Use of Camouflage Nets
  - » **Use Heated hulks and Deception Vehicles**
  - » **Hide Vehicles in Rough Ground**

SOKOL

- **MISSIONS**
  - » **Close Air Support**
  - » **Anti-Tank Operations**
  - » **Air Assault Security**
  - » **Armed Recon**
- **SOKOL WEAPONS vs MI-24 HIND-E**
  - HIND-E
    - 57mm Rocket Pods
    - Four AT-6 ATGMs
      - 5000 Meter Range
    - One 4 Barrel 12.7 mm Gatling Gun
    - Two 23mm Cannons
    - Four 500 kg Bombs
  - SOKOL
    - 57mm Rockets Pods
      - 500-900 Meter Range
    - AT-6 ATGM
      - 2000-2500 Meter Range
      - Binocular System With 10 X 40 Magnification
    - Gatling Gun, 23mm Cannon, 500 kg Bomb
      - Not Replicated
- **RULES OF ENGAGEMENT**
  - » Sokol “Lives” Authorized by CBI
  - » Operations
    - Wingman Required
    - Hover Fire
    - Running Fire
  - » MILES Engagements
  - » Reconstitution - “Briefly” Land Behind Reconstitution Line

HIND-D VISMOD

DESCRIPTION:

- **Looks remarkably like a "Huey."**
- **Can carry 10 soldiers.**
- **Operate in pairs.**
- **Always escort TF Angel to its LZ.**

ARMAMENT:

Weapon	**Range**	**Kill Code**
AT-6 ATGM	**5000m**	**07**
57mm rockets	**3000m**	**14**

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THREAT ANTI-TANK

ROLE ON THE BATTLEFIELD:

- The AT-5's and MT-12's will maneuver on the flanks, out of the smoke to provide overwatch and flank security
- Engage repositioning forces and any counterattack force
- **AT-5's now have thermal capability, increasing their effectiveness during limited visibility**
- Dismounted AT-5's will often accompany the TF Angel
- AT-5's may also go with the FD
- HINDs may be used as part of the AT reserve when not moving with the lead battalions
- AT reserve located along BLUEFOR most likely armor avenue of approach

WEAPONS SYSTEMS:

AT-5/BRDM-2

- Consists of 4 x VISMODs and up to 5 actual BRDM-2's
- BRDM-2's carry the AT-5 (4 km range), replicated by the TOW II system that includes **thermal imaging capability**
- Organized into 3 platoons with 3 vehicles per platoon
- Replicated 15 shots per vehicle (5 mounted on top of the vehicle with ten more rounds inside the vehicle)

MT-12/MTLB

- MTLB is the prime mover for the MT-12
- Consists of 6 real or VISMOD
- MT-12 has a 100mm smoothbore main gun with a 1 km range
- There are 2 platoons with 3 guns each
- MT-12's are routinely employed with the AT-5/BRDM-2's in an AT reserve role. They will normally form an "L"-shaped ambush with MT-12's along the side of the "L" and the AT-5/BRDM-2's along the bottom of the "L"
- MT-12 fighting positions are usually bowl- or wedge-shaped, so the MTLB can reposition the MT-12 easier to cover a larger sector of fire. The position is constructed so that the gun and the MTLB are at or below ground level
- When engaging the MT-12, **target the weapon system, not the prime mover**. The MTLB does not carry MILES.

RPG-16

- Replicated by Dragons with a 1000 m MILES range

RPG-18

- Replicated by Vipers with a 300 m MILES range

Command and Control

- 4 x BRDM-2 C2 vehicles are used for command and control

THREAT ANIT-TANK (CONTINUED)

7th ANTI-TANK BATTALION

- **Command and Control:**

  - During Regimental operations, the Anti-Tank Battalion normally works under the control of the Regimental Commander. However, AT-5s and MT-12s can be attached to MRBs for specific missions.

  - During offensive missions, an Anti-Tank Battalion is employed as an AT reserve. The reserve usually consists of the battalion and a MOD. The Anti-Tank Battalion usually moves behind the advancing first echelon, oriented toward the most exposed flank. Successive firing lines are utilized to facilitate command and control and guarantee continued momentum.

- **OFFENSIVE OPERATIONS:** The Anti-Tank Battalion mission changes during the three different phases of an offensive operation:

  - During the preparation phase of an attack, the Anti-Tank Battalion moves to cover the deployment of the first echelon. By containing enemy armor, covering the deployment of attacking units, and engaging armored antitank targets on the forward edge of enemy positions, the AT Battery contributes to preparation fires.

  - During the support phase, the Anti-Tank Battalion is used to cover the Regiment's flanks and the commitment of the second echelon. In addition, the Anti-Tank Battalion provides a screen for sectors subjected to enemy nuclear strikes during reorganization, and assists in consolidation on the objective.

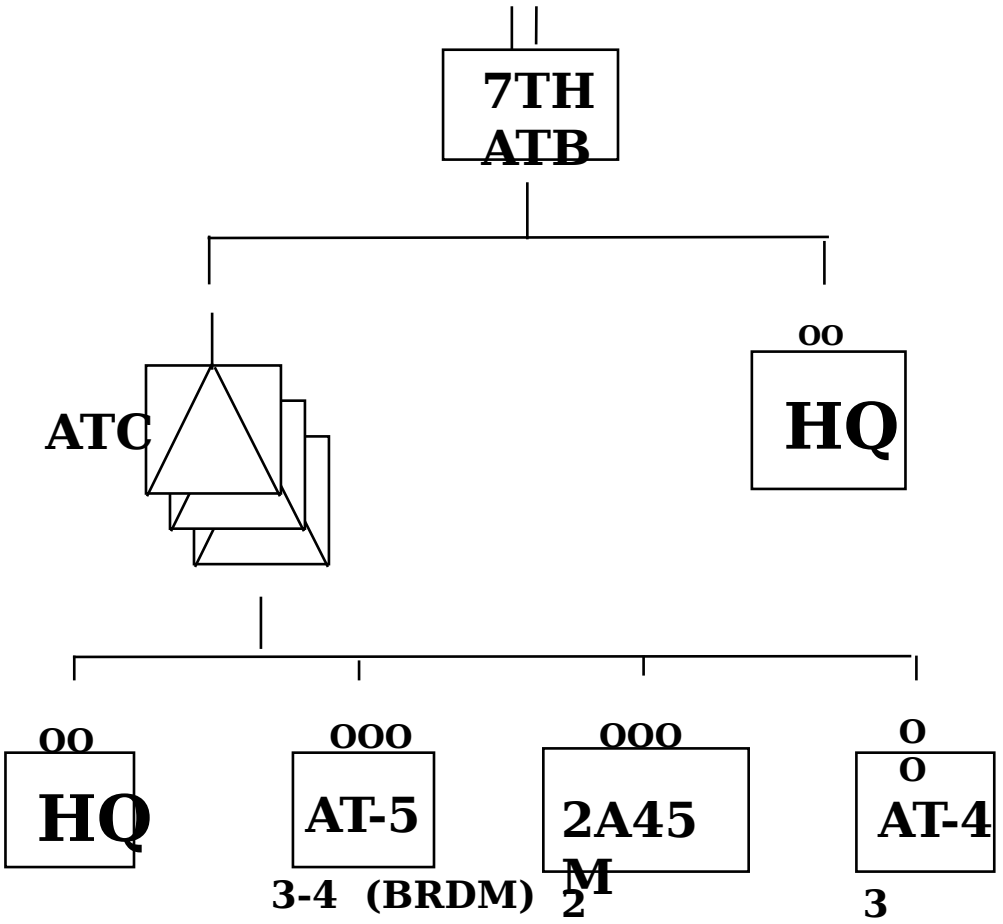
  - During the accompaniment phase, the Anti-Tank Battalion and POZ are employed in depth to cover likely counter-attack approaches.

- **DEFENSIVE OPERATIONS:** During defensive operations, the AT Batteries / Platoon as well as tanks and BMPs may be kept as a reserve. During Regimental defenses, the AT vehicles are under Regimental control. During MRC or MRB defenses, the AT vehicles may be placed under the control of the MRC or MRB commander.

7TH ANTI-TANK BATTALION

- **MISSION:**
  - » Provide heavy anti-tank fires
  - » Support regimental manuever units
  - » Both offense and defense

- 7TH ATB ORGANIZATION



7TH ANTI-TANK BATTALION

- 7th ATB Organization
  - » ATCs normally field only 2 of the following at any given time:
    - 3-4 AT-5'S (BRDM)
    - 2 2A45M'S
    - 3 AT-4 SPIGOTS

- **Mission of AT Fire Support**
  - » Provide long range, accurate fires versus :
    - Tanks
    - AFVs
    - Engineers
    - Attack helicopters
- **Capabilities & Limitations**
  - » **AT-5 (BRDM-MOUNTED)**
    - **15 rounds/offense , 45 /defense**
    - **100m-4000m range**
    - **10-15 seconds tracking time**
    - **must be stationary to fire**
    - **can fire 2-3 rounds per minute**
    - **uses TOW Miles (MILES 1) for weapon system**
    - **may dismount AT-5 if cover/concealment not available for vehicle -mounted system**
      - **– becomes "AT-4" in dismount mode**
    - **difficult to locate on battlefield**

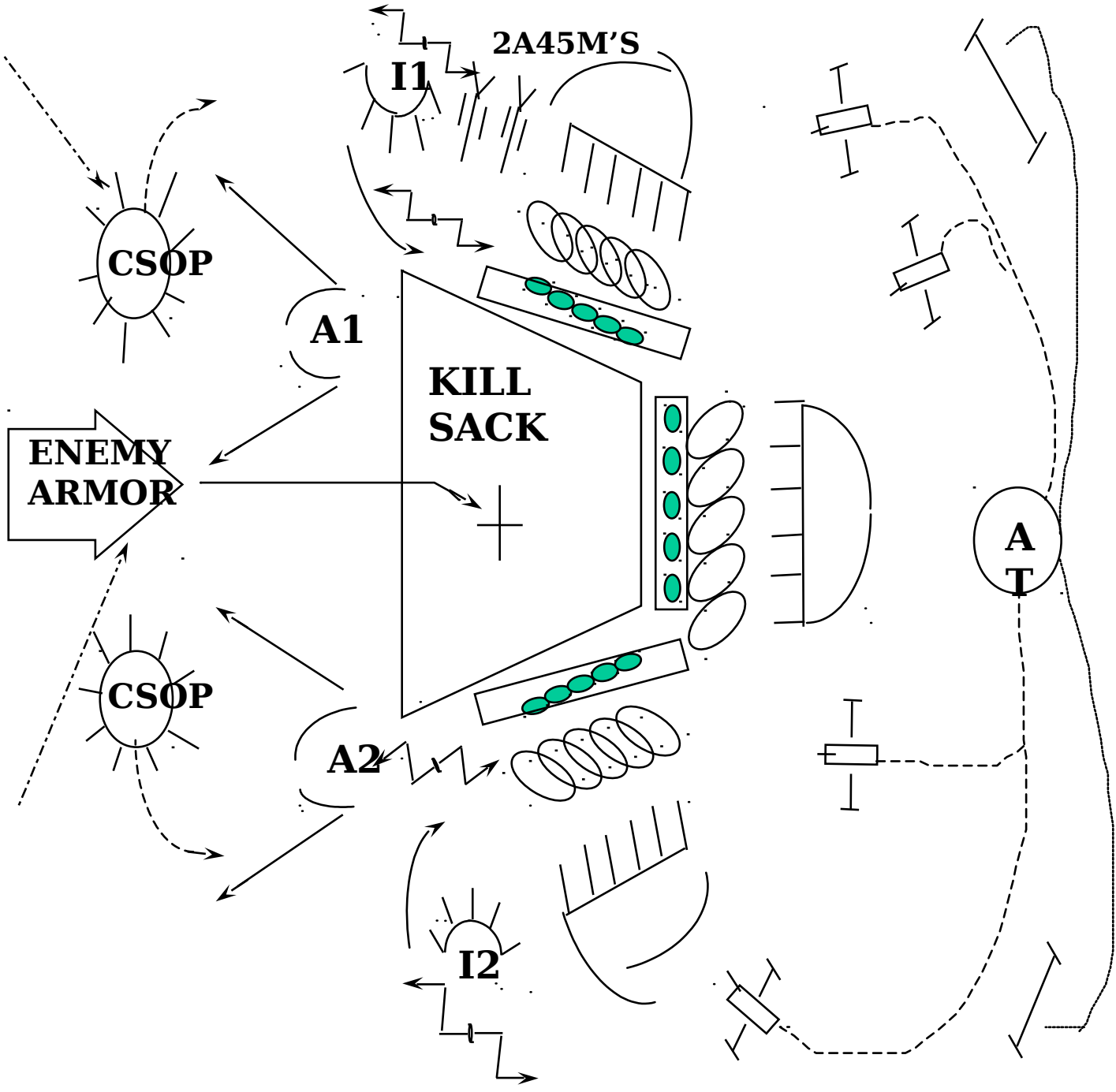
7TH ANTI-TANK BATTALION

- **Capabilities & Limitations**
  - » **AT-4 SPIGOT**
    - Dismounted heavy anti-tank weapon
    - Same MER, firing rate as AT-5
    - Maximum of 5 rounds per system
    - Must be disassembled into 7 pieces, manpacked for transport
    - Heaviest component weighs 63 lbs
    - Requires 6-9 personnel to transport weapon and missiles
    - 4 min to set up system at firing site.0
  - » **2A45M** (SPRUT-B)
    - 40 rounds/offense, 120/defense
    - Fire rate : 9 rounds per minute, then must reload Hoffman racks
    - Slow, 8-10 mph cross-country, 15-20 on improved trails
    - Basically a towed T-80 main gun
    - MER 2400 meters
    - Towed by a non-visually modified HMMWV
    - Very difficult to see in the defense
- AT Employment
  - » **Offense:**
    - Provide covering fire for movement
    - Penetrate defense w/long-range fires
    - Normally AT-5s and AT-4s used
      - **2A45M occasionally used for meeting battle or to replace maintenance-down AT-5s**

7TH ANTI-TANK BATTALION

- **OFFENSIVE OPERATIONS**
  - » **ATB support of the attack:**
    - Support AG / FD
    - Secure point of penetration
    - Secure regimental flank
    - Field dismounted AT-4s for TF Angel and TF Destroyer
  - » **ATB deployment / MRR attack**
    - 1 ATC with AG / FD
    - 1 ATC with main body
    - 1 ATC + MOD with reserve **or**
    - 2 ATCs with AG / FD
    - 1 ATC with main body
- **AT Employment, continued**
  - » **Defense :**
    - MRB defense
    - Security zone
    - Normally AT-5s and 2A45Ms used
    - 2A45M particularly effective
  - » **ATB / ATC Employment**
    - Main belt defense
    - Reserve (+ MOD)
    - Security zone
      - – Force early BLUEFOR employment
      - – Counter-recon
      - – Assist breaking contact
      - – Reposition to counter threats

THE ATB IN THE DEFENSE



Prevent

Defeat

7TH ANTI-TANK BATTALION

- DEFENSIVE OPERATIONS, continued
  - » **2A45M Deployment:**
    - Within main belt defense (integrated with infantry)
    - Forward edge / flank
      - **firing into kill sack**
    - Covering key terrain
    - **Fight in pairs, 50-500 meters apart**
  - » **AT RESERVE (with MOD)**
    - Missions:
      - Blocking
      - Counterattacking
      - Reinforcing
      - Rear Area Security
- **OTHER ATB MISSIONS**
  - » **TF Angel** and **TF Destroyer**
    - **Three AT-4s** to support dismounted infantry during offensive operations
    - TF Angel: Air Assault
    - TF Destroyer: Vehicle inserted
      - **Always escorted by scouts (1 BRDM and 1 BMP)**

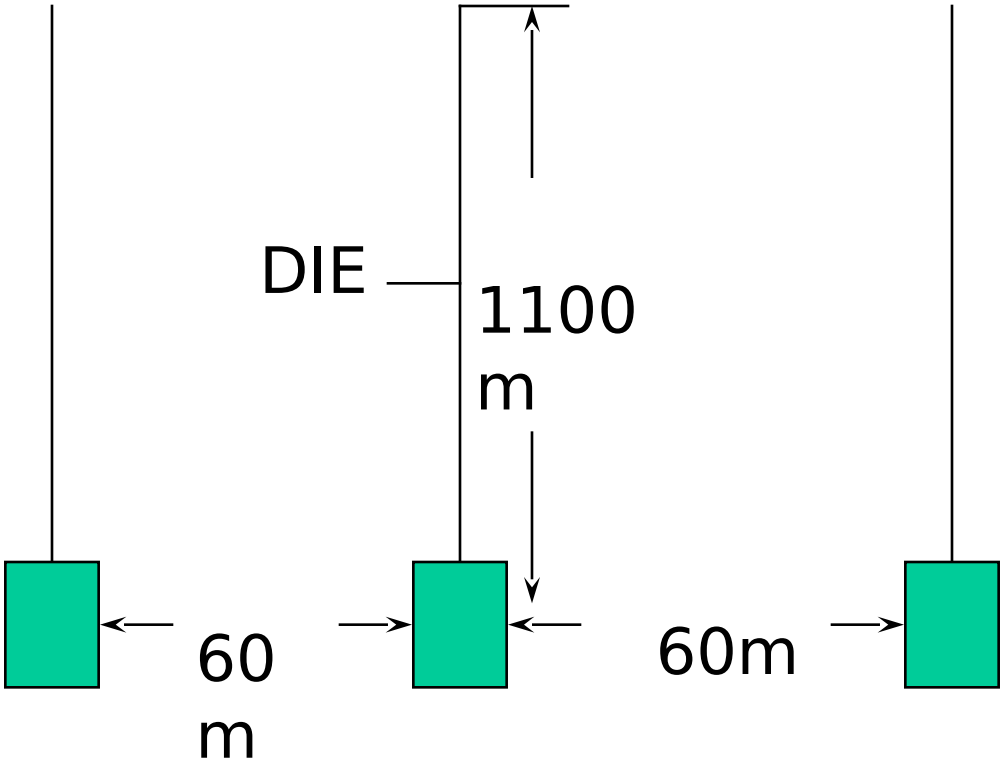
KRASNOVIAN ENGINEER

- **MISSIONS:**
  - » Mobility
    - To support the MRB in maintaining a high rate of advance
  - » Countermobility
    - To block enemy penetration
  - » Survivability
    - To construct survivability positions for weapons and personnel

- **ENGINEER SUB-ELEMENTS**
  - » **Movement Support Detachment**
    - Breach
      -Mines, wire, tank ditch, etc
    - Mark lanes
    - Fight as infantry
    - 2 MSDs/ MRR,1 MSD / MRB
    - Typical MSD organization:
      - 1 officer, 6 soldiers
      - 1 M113A2 VISMODs (personnel transport)
      - 2 ACEs per MSD (breach assets)
  - » **Mobile Obstacle Detachment**
    - Secure the flanks
    - Capable of laying 900 meters front and 120 meters depth
      - Simulates 3 GMZs
    - Normally attached to Anti-Tank Reserve
    - 2 MODs / MRR, 1 MOD / MRB
    - M113A2 VISMOD with trailer
      - 1 officer, 4 soldiers

KRASNOVIAN ENGINEER

- **ENGINEER SUB-ELEMENTS, continued**
  - MINE LAYING DETACHMENT
    - Primarily used in defense
    - 5-ton truck with VISMOD Volcano mounted in bed
      - VISMOD M113 acts as admin vehicle to physically emplace mines
    - **Capable of scattering 960 mines**
      - **4-hour minefield duration**



THREAT ENGINEERS MOBILITY

- **Two Types of Engineers:**
    - **Combat engineers (Sappers)**
        - Tasks may require direct contact with BLUEFOR
    - **Technical engineers**
        - Do not normally engage BLUEFOR
        - Generally use utility vehicles as primary transportation

- **MSD** (Movement Support Detachment)
    - **Missions**
        - Conduct route preparation
        - Conduct breaching operations to facilitate the rapid movement of the main force
        - Construction of bypasses is preferred method
        - Construct passage through debris
    - **Offense**
        - During MRR offense, 2 x MSDs will be employed:
            - 1 MSD will travel behind FSE of AG or FD
            - 1 MSD will travel with lead MRB in regimental main body
        - During MRB offense, 1 x MSD will be employed
        - Can be included as part of TF Angel / Destroyer
    - **Defense**
        - If used, 1 x MSD will be located with reserve (AT or MRB):
        - Facilitates movement of reserve for counterattack
- **Obstacle Clearing:**
    - Shared responsibility by engineer and maneuver units
    - Create passages for attacking forces (breaching)

- **Breaches:**
    - All breaches will be marked by pyro, visual, and/or guides
        - Normally marked by green smoke or flags
        - Lane will be 5-6 meters wide
    - Each tank platoon will have one tank replicating a KMT mine plow to facilitate hasty breaching
    - All OPFOR engineers and infantry carry breaching equipment
        - TF Angel and Destroyer (dismounted) will conduct breaches to facilitate movement of OPFOR without use of OPFOR engineers
    - Methods depend on situation, type of obstacles, and assets available
    - Mechanized forces use mine rollers and plows on tanks or a mine clearer
    - Assault breaching (dismounted attack) done by infantry aided by the MSD; usually done in smoke or darkness

THREAT ENGINEER SURVIVABILITY

- **GENERAL:** The MRB commander sets priority for construction of vehicle fighting positions

- **Types of Vehicle Fighting Positions:**

    - **Type I (Deception / Track Down):**
        - Usually seen in the security zone or during in-contact defenses
        - Very hastily dug position
        - Digging Time = 0.5 Dozer Hours

    - **Type II (Hasty / Hull Down):**
        - Seen in security zone or with a reserve and sometimes in MDA
        - Digging Time = 1.0 Dozer Hours

    - **Type III (Standard Main Belt Defense / Turret Down):**
        - Most utilized fighting position by OPFOR
        - Seen in MDA (strongpoints)
        - MILES belts are effectively concealed from BLUEFOR
        - Digging Time = 2.0 Dozer Hours

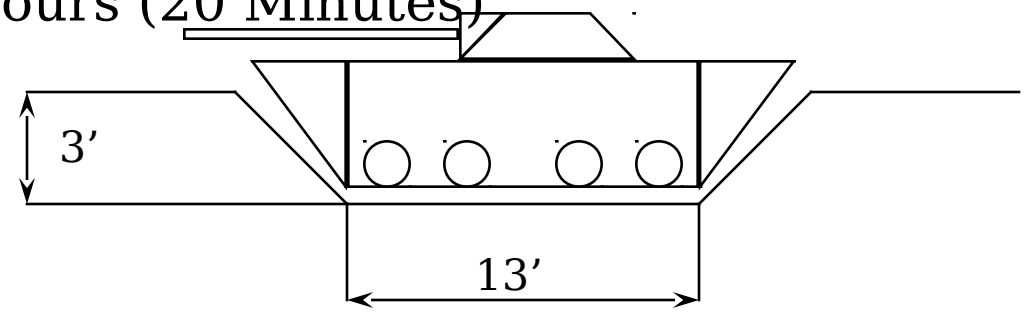
- When possible, alternate and supplementary positions are constructed

- Dummy positions are used to deceive the location of the actual defense

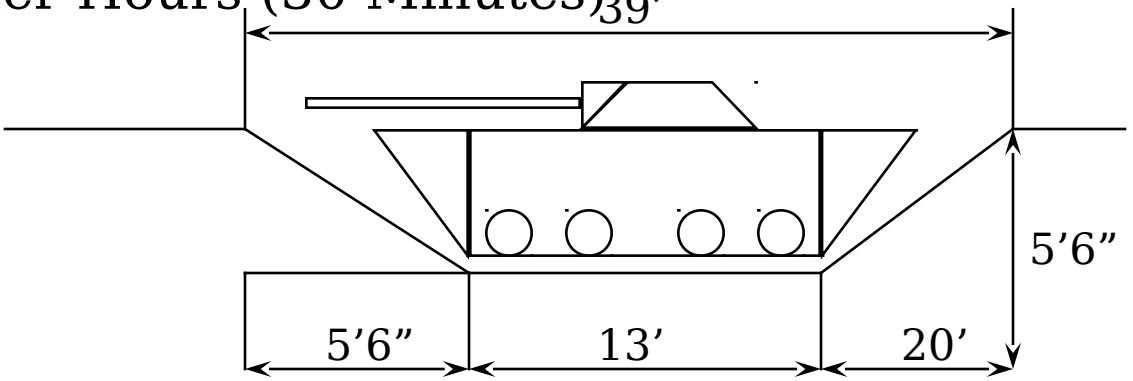
- **Dismounted infantry fighting positions:**
    - 2 man fighting positions are roughly dug by the SEE then squared by the infantry
    - 99% of the time overhead cover is completed
    - Look for these positions along "walls" and rolling hills

VEHICLE FIGHTING POSITIONS

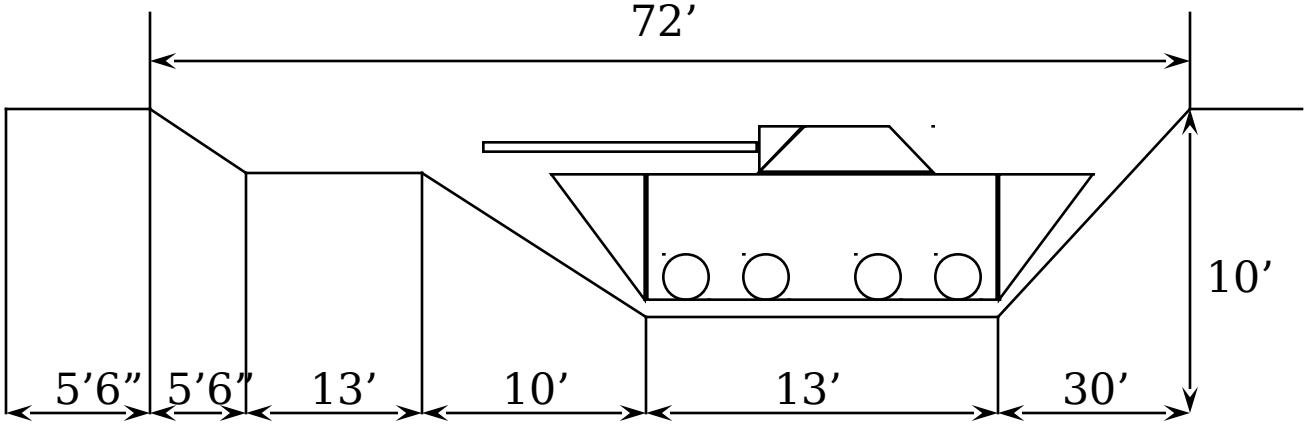
TANK TYPE I: Deception / Track Down
0.2 Dozer Hours (20 Minutes)



TANK TYPE II: Hasty / Hull Down
0.5 Dozer Hours (30 Minutes)



TANK TYPE III: Standard Main Belt Defense / Tu
0.75 - 1.0 Dozer Hours (45 Minutes - 1 Hour)



KRASNOVIAN OBSTACLES

KRASNOVIAN ENGINEER

- OBSTACLE GROUPINGS
  - » DISRUPT
  - » FIX
  - » TURN
  - » BLOCK

- **Common Obstacle Characteristics**
  - » Following characteristics apply to all Krasnovian obstacles:
    - **300m long**
    - Minefields
      - **100m in depth**
      - **3 rows x 50 mines**
      - **1 marking fence**
        - » **60 pickets**
        - » **20 rolls concertina**
    - Triple-strand concertina
      - **120 pickets**
      - **60 rolls concertina**
    - **Covered by direct fire!!!!**

THREAT ENGINEER COUNTERMOBILITY

Countermobility Operations:

- Wire, minefields, and AT ditches are emplaced to canalize BLUEFOR into fire sacks
- Pickets may be emplaced without wire to serve as deceptive obstacles
- The OPFOR can emplace up to 5,000 m of mines, 6,000 m of concertina, and 2,000 meters of AT ditches

Offensive Obstacles:

- Protect flanks
- Disrupt counterattacks
- Strengthen captured positions

Defensive Obstacles:

- Strengthen defense
- Disrupt enemy operations
- Cover gaps
- Obstacles usually placed in gaps between strong points and Bn defensive areas
- Use minefields, AT mines, anti-personnel mines, and concertina wire
- Uses decoy minefields

MOD (Mobile Obstacle Detachment)

- Varies in size depending on the operational situation and the needs of the maneuver commander
- Can be employed at the regimental, divisional, and army levels

- **Missions:**
  - Employ AT minefields in offense and defense
  - Deny key terrain and avenues of approach
  - Protect flanks in offense
  - MOD minefields will be laid at last possible moment

- **Offense:**
  - 1 MOD may be employed, 2 x MOD with an MRR offense:
    - 1 MOD will be attached to MRR AT reserve
    - 1 MOD will be attached as needed (usually with the Advanced Guard)
    - MOD (with reserve) will emplace hasty minefields
  - Minefields may be emplaced on key terrain taken by OPFOR

- **Defense:**
  - 1 MOD will be used with the AT reserve in the defense
  - Will conduct counterattack with AT reserve

THREAT ENGINEER COUNTERMOBILITY (CONTINUED)

Types of Obstacles:

- **Minefields:**
  - The best method to distinguish OPFOR minefields is by the amount of time needed to emplace them and the different types of mines found in them.
  - Emplaced by sappers with troop labor or mechanical minelayers (if available)
  - Five basic types of minefields:
    - Antitank (AT)
      - Used on high speed avenues of approach to deny passage of mobile formations
      - AP mines may be in the first few rows of an AT minefield
      - AT minefield: Surface laid mines 5 m apart in 3 rows, 300 m wide, 120 m deep, with 20-40 m between rows, concertina on both sides and rear of minefield
    - Antipersonnel (AP)
      - Often used with AT mines to delay clearance
      - Often used in difficult terrain to prevent light infantry from bypassing OPFOR positions
      - AP minefield: Surface laid mines 1 m apart in 2-4 rows, 300 m wide, 50 m deep, with 5 m between rows, concertina on both sides and rear of minefield
    - Mixed
      - Consists of both AP and AT mines
      - AP and AT mines are not mixed within rows
      - AT mine requirements govern the minefield's parameters, outlay, and density.
    - Decoy
      - Used as a form of deception
      - No actual mines are laid
      - Exhibits freshly dug dirt, signs of engineer activity, and minefield markers
    - Antilanding
      - Prevent landings by airborne or helibome assault forces

Uses AT and AP mine configuration plus bottom anchored mines 1 mile under the waters surface

THREAT ENGINEER COUNTERMOBILITY (CONTINUED)

Types of Obstacles (Continued):

- **Artillery-delivered mines:**
  - Fired on existing obstacles to fill enemy breaches
  - Fired behind lead echelon of enemy to isolate part of his forces
  - Command detonated mines used by light infantry and special operations forces to initiate ambushes

- **Concertina wire**

- **AT ditches**
  - At least 2 meters deep and 3-5 meters wide
  - **Equipment:**
    - **MDK-2** (Bulldozer Replicated)
      - Create AT ditches 4 m wide and 4.5 m deep
      - Can be used to dig in AT weapons if needed
    - **MDK-3** (Bulldozer Replicated)
      - Create ditch 3.7 m wide and 3.5 m deep
      - Has ripper and road harrow for route denial

- Persistent agents are used as obstacles

THREAT ENGINEER COUNTERMOBILITY (CONTINUED)

Minelaying Capabilities:

- **Transport helicopter:**
  - Surface lay mines using chutes or dispensers
- **Multiple rocket artillery:**
  - Create remote minefields (Notional, Visual Signature is Yellow Smoke or Beacon)

Emplacement of Mines:

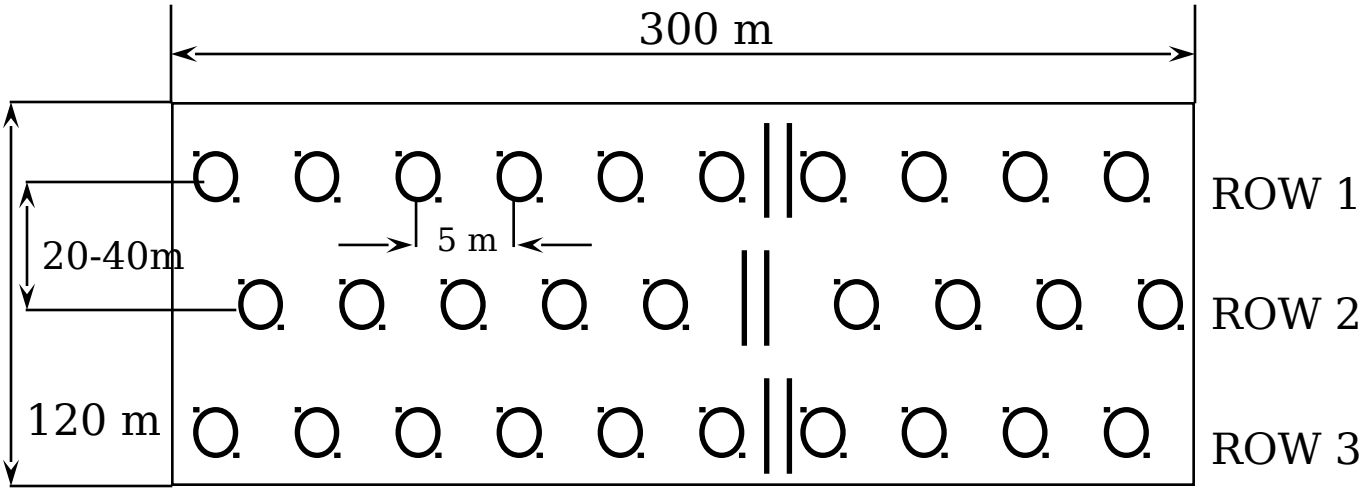
- GENERALLY, platoons lay three rows of mines
  - 4 or 5.5 m between mines
  - 20-40 m between rows
- Usually mixed mines (especially in the third row) but occasionally anti-personnel are omitted due to time or ease of recovery
- 1st row- 3 km from forward positions
  - Covered by artillery fire
- 2nd row- 1-1.5 km from front
  - In range of tanks, SPGs and heavy machine guns
- 3rd row- 300 m from 1st trenches
  - In range of small arms fire and RPGs

FASCAM (Defense):

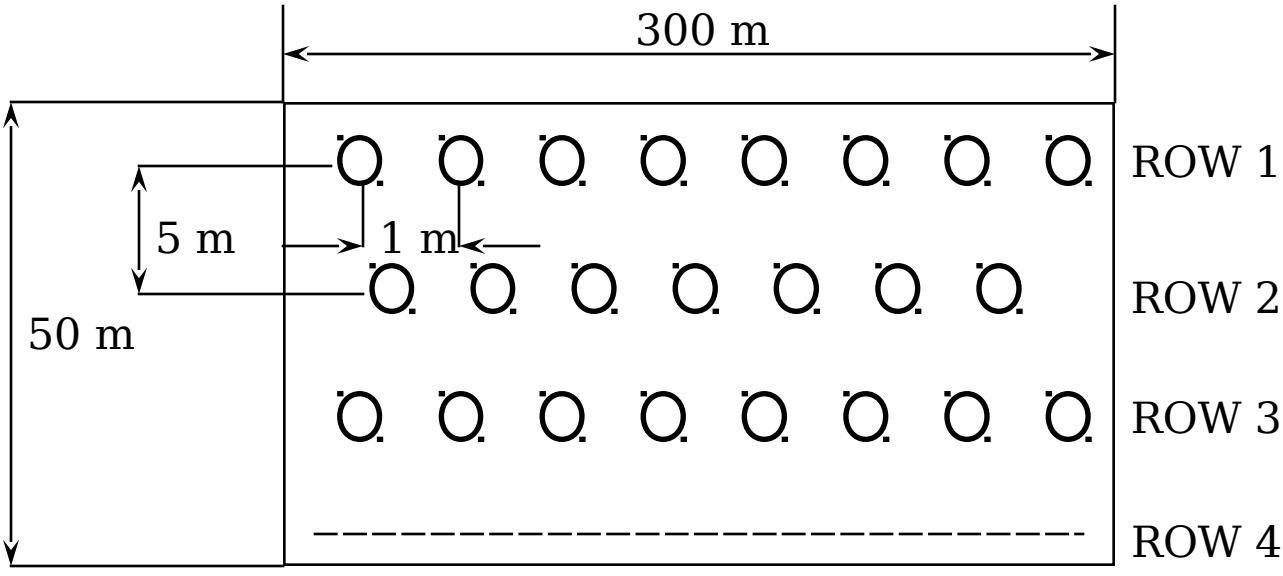
- Used to close breached obstacles
- Separate attacking echelons
- Protect flanks
- Used in choke points

THREAT OBSTACLES

ANTITANK MINEFIELD CONFIGURATION

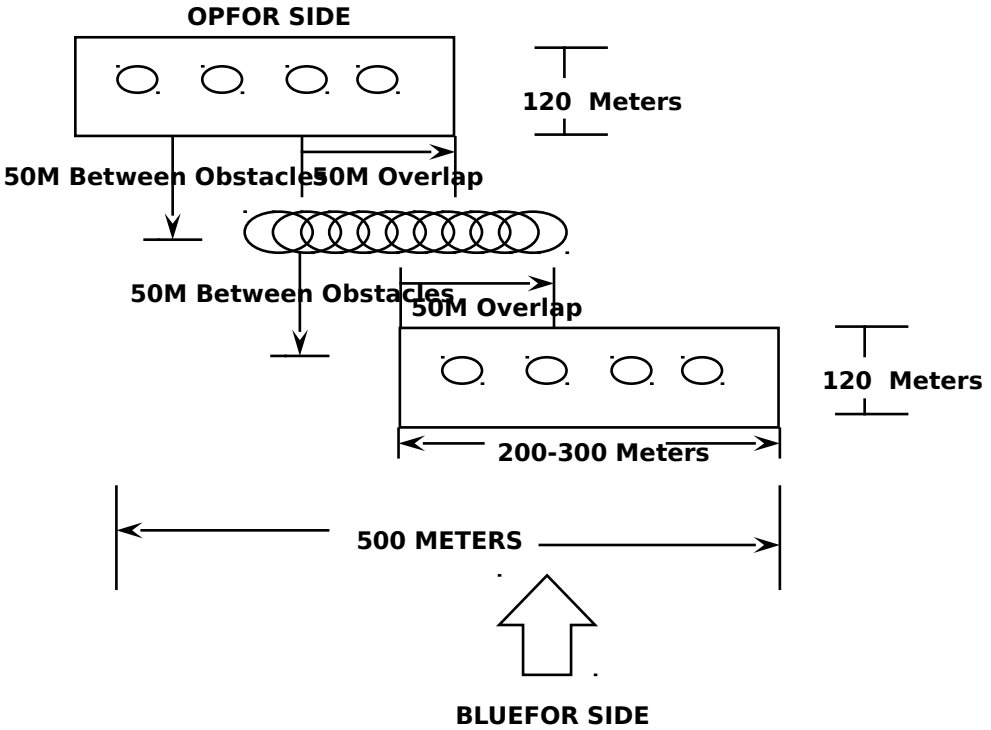


ANITPERSONNEL MINEFIELD CONFIGURAT

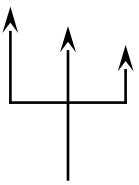


THREAT OBSTACLES (CONTINUED)

DISRUPTING OBSTACLES GROUP

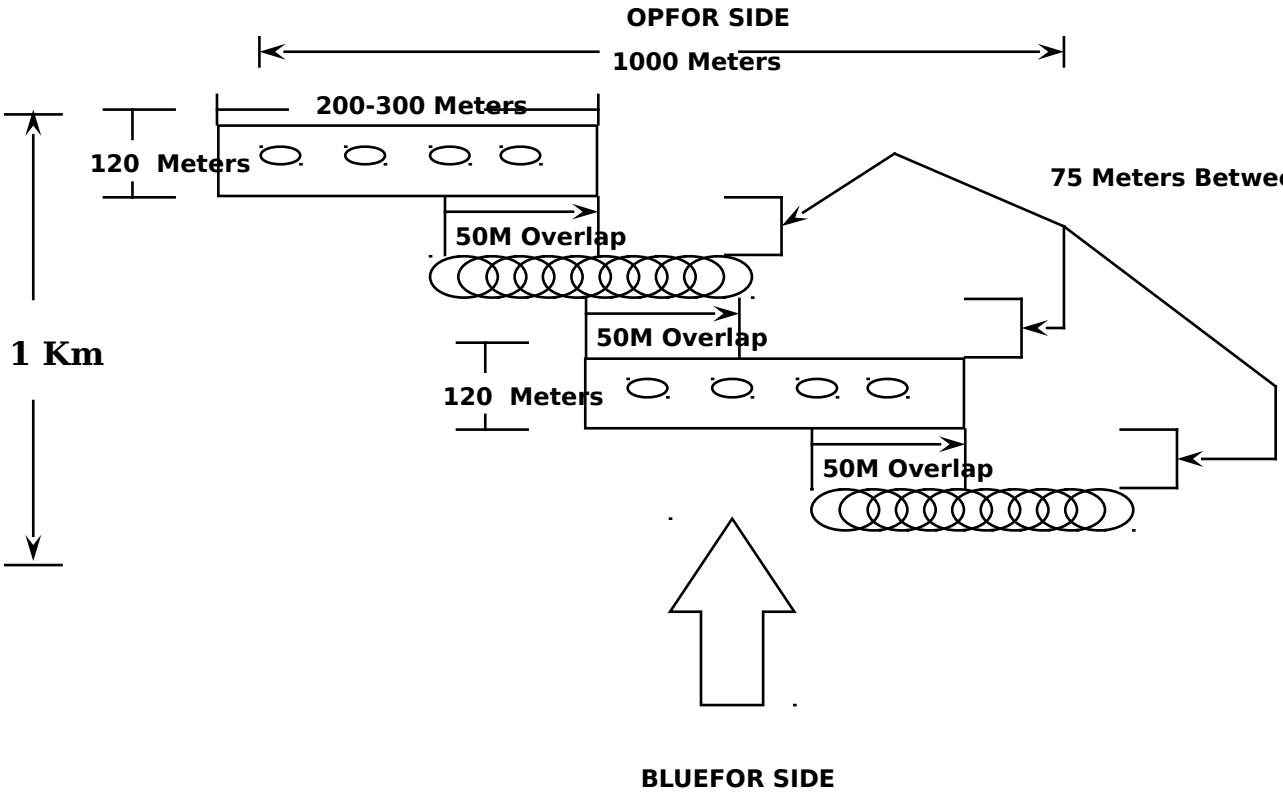


- Usually located on high speed avenues of approach into the OPFOR's defense
- Placed 2/3's of max effective range of weapons defending MRB's CSOP (combat security outpost)
- It will be covered by indirect fire with at least two observers and is used to break up formations
- 2 AT minefields, 1 triple strand concertina
- LOGISTICS:
  - 360 Mines
  - 150m Wire
  - 320 Pickets
- EFFORT: 4 Platoon Hours
- SYMBOL:



THREAT OBSTACLES (CONTINUED)

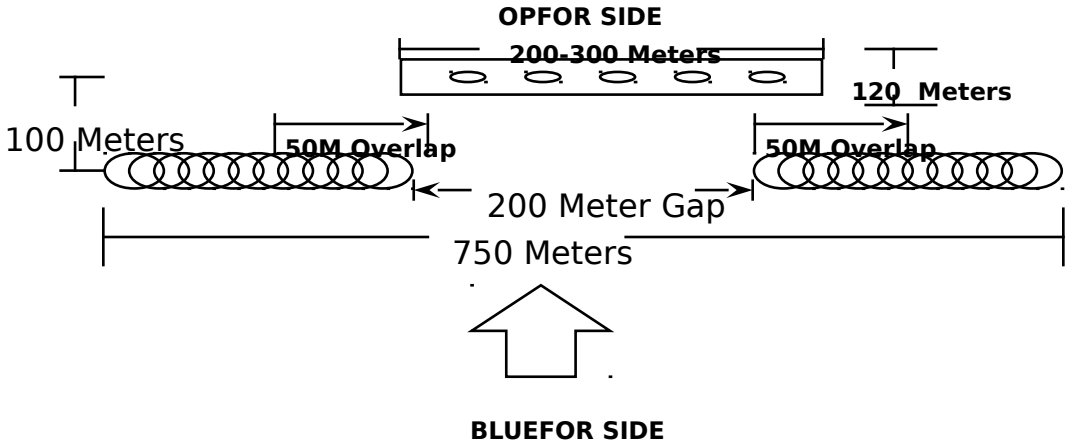
TURNING OBSTACLES GROUP



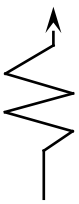
- Located on the defense's flanks to turn us into the fire sacks
- 1/2 effective range to 50 meters in front of main defensive battle positions (strongpoints)
- Covered by fires from a defensive battle position
- 2 AT minefields, 2 triple strand concertina
- LOGISTICS:
  - 360 Mines
  - 240m Wire
  - 480 Pickets
- EFFORT: 6 Platoon Hours
- SYMBOL:

THREAT OBSTACLES (CONTINUED)

FIXING OBSTACLES GROUP

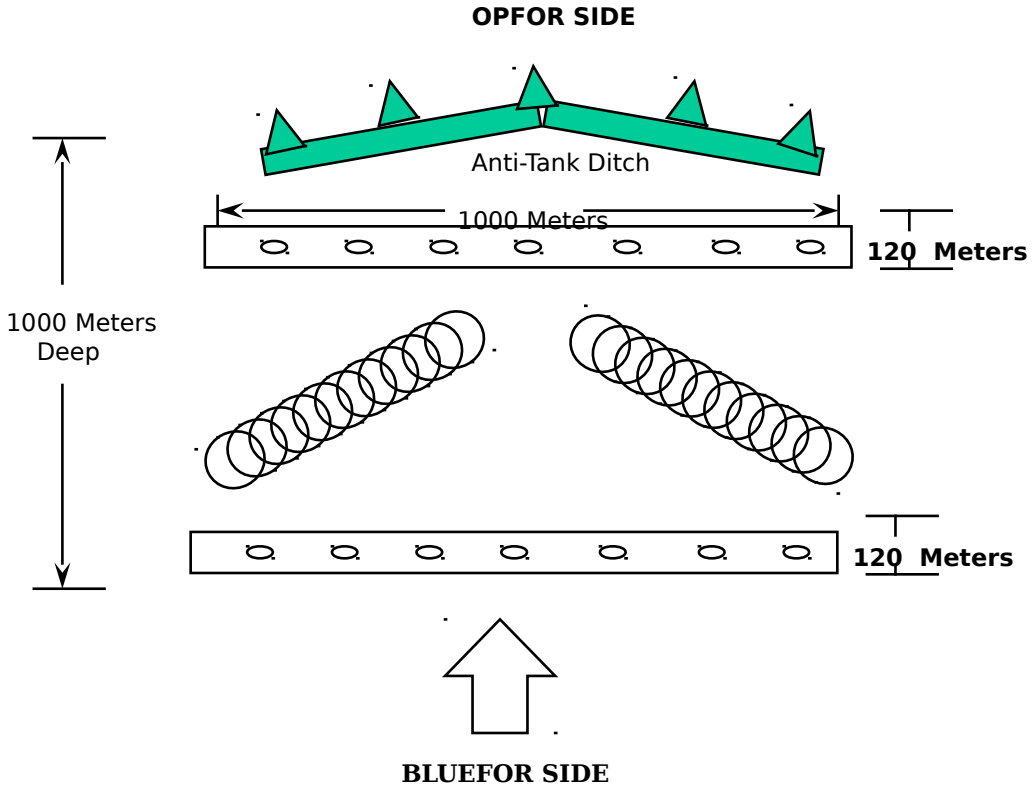


- Located in front of a CSOP or tank ambush
- 1/2 effective range to 50 meters in front of main defensive positions (strongpoints)
- Covered by fire from defensive battle positions
- 2 AT minefields, 2 triple strand concertina
- LOGISTICS:
  - 180 Mines
  - 210m Wire
  - 400 Pickets
- EFFORT: 4 Platoon Hours
- SYMBOL:



THREAT OBSTACLES (CONTINUED)

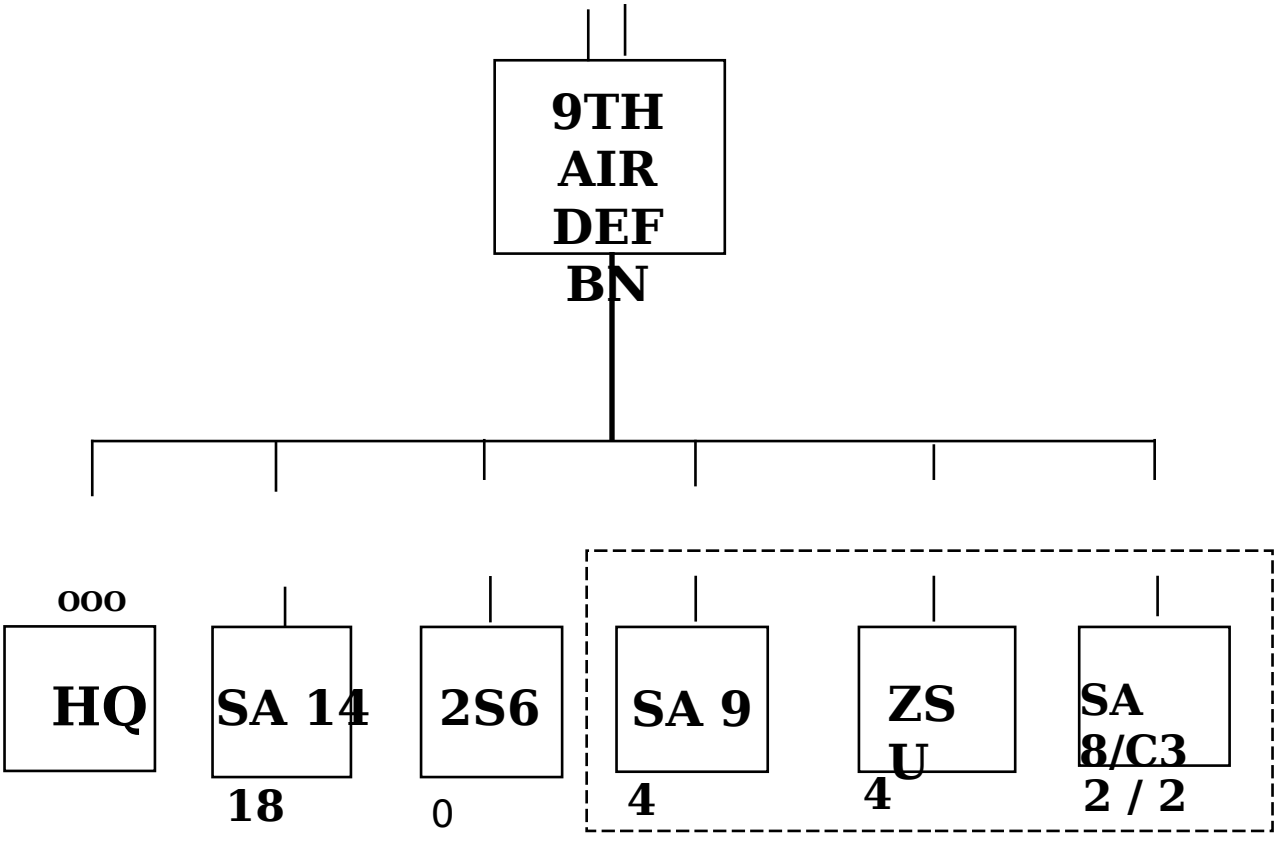
BLOCKING OBSTACLES GROUP



- Located in front of the base battle position at the “bottom” of the MRB’s fire sack
- Covered both by direct or indirect fire
- Will be close enough to the OPFOR positions that 2/3’s of the defenses weapon ranges are beyond the obstacle (700-1500 meters in front of vehicle positions)
- 2 AT minefields, 2 triple strand concertina, 1 AT ditch
- LOGISTICS:
  - 360 Mines
  - 240m Wire
  - 480 Pickets
- EFFORT: 6 Platoon Hours
- SYMBOL:

9TH AIR DEFENSE BATTALION

- **Mission:**
  - » Suppress/destroy US Army helicopters
  - » Provide short-range air defense against US Air Force CAS



- **Planning Considerations**
  - » Unit utilizes 25 - 32 personnel to deploy ADB assets
  - » ADB fields fewer systems than OPFOR-style unit
    - Coordination & positioning of systems critical
  - » Commander must identify:
    - **Most dangerous aerial BPs**
      - **SA-14s, ZSU 23-4s**
    - **Overlapping fires**
      - **SA-8 & SA-9s**

9TH AIR DEFENSE BATTALION

- SA-14 Missions
  - » **Air defense ambushes**
  - » **LZ interdiction**
  - » Early engagement of enemy CAS
  - » **Recon and security**
    - **Work closely with Regimental scouts**
      - **Not authorized to insert with Div Recon in offense**
    - **Search for BLUEFOR scouts, COLTs, & Stingers**
    - Provide early warning
    - Clear positions for ASET IV

- **SA-14 Characteristics**
  - » **6** two-man teams with **3 SA-14s each**, 18 total
  - » Transported by VISMOD HMMWVs w/14.5mm MG.
  - » Each capabilities **12 rounds**

- **SA-14 Capabilities**
  - » Real world weapon:
    - Fire and forget missile
    - 5000 meter MER
  - » **NTC SA-14**
    - Stinger MILES
    - 13 second target tracking time
    - **2500 meter MER**
    - Capable of killing Apaches
    - **Used for night engagements**

THREAT ADA
SA-14 PLATOON

GENERAL: The SA-14 platoon represents the OPFOR's low-tech workhorse. (Normally, a regiment has eighteen of the more advanced SA-16/18 weapons teams operating from 30-mm equipped BMP-2s.) These two-man teams will carry twelve SA-14 rounds and will be in the BRDM-2 (VISMOD). Each MRB will also have SA-14 capability, using green star clusters to replicate the SA-14. **It can take 8 shots of green star clusters at an aircraft before a kill is adjudicated.** SA-14 capability total for the entire MRR: up to 48 systems (12 of which are Stingers).

EMPLOYMENT:

- During both the defense and the offense, the SA-14 platoon's best tactic is to conduct air defense ambushes. These ambushes can consist of up to three teams within 300 m of each other. The OPFOR commander conducts extensive IPB and recon in order to position SA-14s along air avenues of approach and around aerial battle positions (BPs). He will position his SA-14 ambush battle positions to throw our deep battle completely off balance by forcing us to focus upon survival rather than our mission.
- When he has the assets, the OPFOR commander will send SA-14 teams out with regimental reconnaissance. Reconnaissance and security are integral parts of the SA-14 mission. Ambush positions are usually located in the same terrain preferred by US scout, COLT, and Stinger teams. The SA-14s normally LD at night and are required to clear a 500 meter radius around their position. If contact is made, the SA-14 gunners can attack and destroy the enemy teams or move to an alternate position.
- The SA-14s are often directed to recon a specific area before moving into their final positions. SA-14 teams work in pairs to accomplish this secondary mission. This aids the regiment by allowing reconnaissance assets to focus on intelligence gathering.
- The SA-14 teams also provide early warning and clear positions for the vulnerable ASET IV missile systems.

THREAT ADA (CONTINUED)

2S6

GENERAL: The OPFOR replicates four 2S6s with VISMOD M551 Sheridans. The OPFOR version currently has no radar or guided missile capability. It does have a MILES cannon with an effective range of up to 5000 meters. The cannon is particularly effective at night due to the prominence of the lasers when viewed through night vision goggles.

EMPLOYMENT:

- In the offense, the 2S6s are deployed in the advance guard or forward detachment of the first echelon. The primary mission of the 2S6 is to provide point air defense against aerial counterattacks.

- In the defense, the 2S6s are positioned within the motorized rifle battalion defensive areas and usually orient on the flank considered most vulnerable to air attack. They can also be task organized to protect the combined arms reserve. **Defending at night is the 2S6's specialty. The 2S6s are very effective in protecting static assets such as artillery groups and covering suspected landing zones.**

9TH AIR DEFENSE BATTALION

- ASET IV
  - » High tech threat
  - » HMMWV mounted (similar in appearance to US Avenger)
  - » **May carry SA-14s as backup system**
  - » Vehicles top-heavy, **cannot operate on rough terrain**
  - » **Limited night capability**
    - **Systems currently only effective with 100% illum**
      - – **Gunners unable to emplace firing system crosshairs on targets with less than 100 %**
      - – Systems will be upgraded in future

- **Normally replicates:**
  - » **1 SA-8**
  - » **2-4 SA-9'S**
  - » **2 ZSU 23-4'S**
  - » **1 C3**

- **C3 Module**
  - » Detects & tracks **up to 16 targets out to 30 km**
  - » Locates other ASET IV modules w/ GPS system
    - **Coordinates fires of up to 9 other ASET IV systems**
  - » **Provides target ranges and azimuths to firing platforms**
  - » **Must be stationary** to operate
  - » Has **9 "lives"**
  - » **May pre-position forward of RL / LD**
    - Rarely approved by higher
    - Will begin air defense ops when main body

THREAT ADA (CONTINUED) ASET IV

ASET IV

GENERAL: The ASET IV platoon is the OPFORs high-tech Air Defense System. It consists of:

- **2X Command, Control, and Communication (C3) Vehicles**
- **2X SA-8s**
- **4X SA-9s**
- **4X Antiaircraft Artillery (AAA) Gun Systems (ZSU-23-4)**

All systems are mounted on modified M998 HMMWVs and look similar to the U.S. Avenger. Each system can carry an SA-14 as a secondary weapon. The vehicles are top-heavy and maneuver is restricted to fairly flat surfaces. ASET IV is an integrated air defense system designed to provide area coverage to the regiment. This coverage is coordinated by the C3 module.

ASET IV C3 VEHICLE

GENERAL: The C3 vehicle is equipped with a pneumatic telescoping air surveillance radar (ASR) which, in conjunction with an IFF system, **detects, tracks, and designates targets a maximum range of thirty kilometers**. Simultaneously, the C3 vehicle records each ASET IV location through a data link to GPS receivers on each vehicle. The C3 vehicle processes the air picture and the location of each fire unity to provide target ranges and azimuths. The C3 operator pairs a fire unit to a target and relays the range and azimuth via voice (SINCGARS) radio transmission.

EMPLOYMENT:

- **The C3 vehicle must be stationary to operate, and is usually deployed behind the regiment's maneuver forces for security.** It operates on the air defense net and it passes general target data to all air defense systems.

9TH AIR DEFENSE BATTALION

- SA-8 MODULE
  - » **Employment**
    - Krasnovian Regimental asset
    - **May pre-position forward of RL / LD**
      - – Will begin air defense ops when main body reaches general location
    - **Offense:**
      - – Positioned to cover main body
      - – Provides overwatch and rear security
      - – May alternate bounds with C3 module to provide continuos ADA coverage
    - **Defense:**
      - – Positioned to rear of main belt defense
  - » **Capabilities:**
    - RFSAM, most powerful NTC ADA system
    - Radar will cover a 24 km radius
    - **MER 12 km**
    - 5 second tracking/missile flight time
    - **Basic load 12 missiles**
    - Locates and engages by radar or visual acquisition
    - System radar will alert enemy prior to missile launch
    - ATWESS provides missile launch signature
    - Can assume a limited role as alternate c3 module

THREAT ADA (CONTINUED) SA-8 MODULE (RFSAM)

GENERAL:

- The SA-8 module is a radio-frequency surface-to-air missile (RFSAM). It is the 9th ADB's most powerful system. It requires a towed auxiliary generator for system power. Its pedestal contains a dish radar, a 14:1 zoom television camera, and a MIILES transmitter, all of which are bore-sighted together. A pneumatic telescoping radar/IFF antenna identical to the C3 is rear-mounted.
- The RFSAM can operate in the C3 mode or SA-8 mode. In the C3 mode, it duplicates the capabilities of the C3 radar, but cannot radiate or engage aircraft. In the missile mode, it has a maximum range of twelve kilometers and a basic load of four missiles. Eight additional missiles are stored for reload.
- During target engagement, the C3 operator hands off targets to the SA-8. This can be done manually using voice radio, or the SA-8 operator can view the C3's air picture via data link and pair his own target. In this mode, the system will automatically track the chosen target. The SA-8 missile is guided by a beam of RF energy that illuminates the target for the missiles' seeker.
- Once the operator radiates a target, an electronic war between the target aircraft and the SA-8 is initiated., The RF signal activates the target aircraft's radar signal detector set and onboard jammers produce electronic counter measures (ECM). The ECM can reduce the SA-8's probability of kill (Pk) significantly. However, in many cases, enemy aircraft are forced to mask themselves behind terrain in order to avoid a missile lock. ***In this way, the SA-8 can preoccupy the helicopters while other systems close in for the kill***.

EMPLOYMENT:

- **OFFENSE:** The SA-8 moves behind the regiment's second echelon and provides both overwatching fires and rear security. In some cases, it bounds alternately with the C3, ensuring continuous radar coverage for the regiment.
- **DEFENSE:** The SA-8 is positioned to the rear. It's radar can cover a 24-kilometer radius, which fills in the gaps left by the SA-14's point defense coverage. It cannot shoot-on-the-move.

9TH AIR DEFENSE BATTALION

- SA-9 MODULE
  - » **Employment:**
    - **Offense:**
      - May be positioned **anywhere** that will allow air defense coverage of main body, RAG and Regimental Jump TOC
    - **Defense:**
      - May position **anywhere** that provides air defense coverage for RAG & Jump TOC
  - » **Capabilities:**
    - IRSAM
    - **MER 6 km**
    - **Basic load 12 missiles**
    - 5 seconds tracking time
    - ATWESS provides launch signature
    - Targets must be visually acquired after alert by C3 module
    - No radar signature prior to missile launch

THREAT ADA (CONTINUED) SA-9 MODULE (IRSAM)

GENERAL: The infrared surface-to-air missile (IRSAM) represents the SA-9 missile system and has a range of six kilometers. The ASET IV platoon fields four of these systems. Each has a basic load of four missiles with eight stored for reload. The SA-9 has no radar mast or dish. Its small pedestal is equipped with only a 14:1 zoom television camera and a MILES laser. The SA-9 operator must find targets optically once they are passed from the C3 or a spot report. The system produces no electronic signature prior to firing. The aircraft engaged has only five seconds to react if it sees the ATWESS signature. Thus the
SA-9 is a lethal and surprising threat to aircraft out to six kilometers.

EMPLOYMENT:

- The SA-9s follow closely behind the first echelon during regimental attacks and behind the main body during independent battalion missions such as advance guards and forward detachments. Firing lines are planned covering flank aerial BPS. The SA-9s are usually the first missile systems to reach the objective and they provide short-range area coverage against aerial counterattacks.
- In the defense, the SA-9s deploy in depth and must be prepared to action laterally to firing lines covering flank aerial BPs. The SA-9 cannot shoot on-the-move.

AAA MODULE:

- Four AAA systems will round out the ASET IV platoon in January 1996. The AAA provides radar directed 23-mm fire for short-range engagements. The pedestal contains an RF radar dish and two 14:1 zoom cameras. One of these cameras is stabilized, which gives the AAA limited shoot-on-the-move capability. The AAA system can engage in radar or manual modes. Like the SA-8, the radar mode initiates an ECM battle and can be used to suppress helicopters without firing The manual mode is preferred for actual engagements because it gives the target no electronic warning.

EMPLOYMENT:

- Employed in the same manner as the 2S6s

9TH AIR DEFENSE BATTALION

- ZSU 23-4 AAA MODULE
  - » **Employment**
    - **Offense**
      - – Meeting engagement / attack against defending enemy:
        - » MRR Cdr **may allocate entire ZSU battery to reinforce Advance Guard**
    - **Defense**
      - – **May position 1-2 km's forward or to flank of MRB defensive area**
      - – Serves as **air defense ambush** and **"roving" weapon**

  - » **Capabilities**
    - **MER 2500 meters**
    - Limited shoot-on-move capability
    - Can engage in manual or radar mode after alert by C3 module
    - **Capable of killing Bradleys**
    - Capable of suppressing Apaches
    - ECM can effectively suppress enemy air without firing weapon system

THREAT ADA (CONTINUED) WEAPON CHARACTERISTICS

WEAPON	#OF SYSTEMS	MAX EFF MILES RANGE	TRACK TIME	RADAR RANGE	BASIC LOAD	VISMOD
SA-8	2	12 km	5 sec after ATWESS Launch	24 k	4 x missiles 8 x stored for reload	1 x HMMMWV 1 x Trailer w/ Power Source
SA-9	4	6500 m	5 seconds	N/A	4 x missiles 8 x stored for reload	1 x HMMWV
SA-14	12	2500 m	11 seconds	N/A	12 x rounds/ team	U.S. STINGER Teams in BRMD-2 VISMOD
AAA / ZSU	4	2500 m	N/A	4 k (camera)	2000 rounds	1 x HMMWV
2S6	4	5000 m	N/A	N/A		VISMOD M551 Sheridan
C^3 Vehicle	2	N/A	N/A	20 k	N/A	1 x HMMWV

NOTES:

- The SA-8 can act as a C3 module, but it cannot fire while doing so.
- The 2S6 does not have radar or guided missile (SA-19) capability.
- Only the 2S6 and the AAA / ZSU can fire / operate on the move.
  All others must be staionary.
- The C3 vehicle has 3 MILES lives. Tracks up to 16 targets at once.

9TH AIR DEFENSE BATTALION

- Additional Employment Considerations
  - » Situation - Single MRB operating as AG, FD or Enveloping Detachment (scenario does not call for a full MRR meeting battle):
    - ZSUs operate with detachment
    - SA-9s cover RAG
    - SA-8s protect notional MRR main body

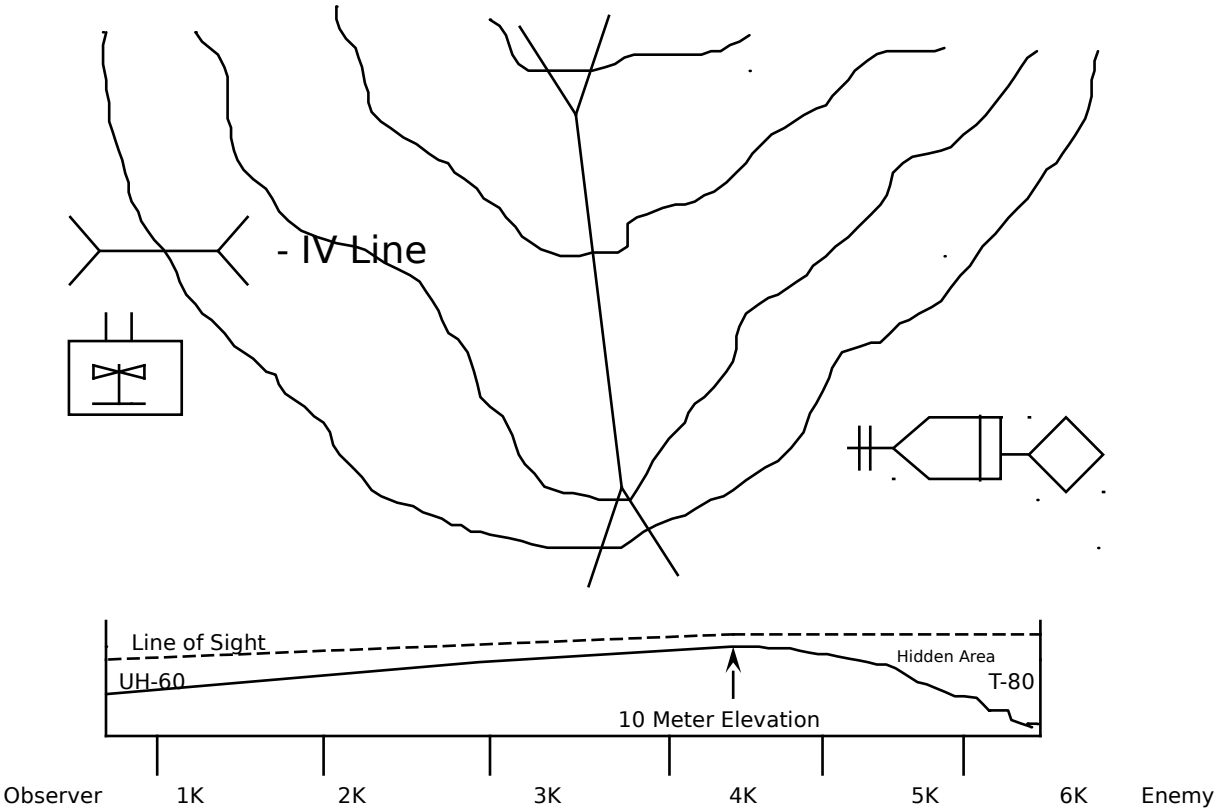
- **"FUTURE" DEVELOPEMENT**
  - » 1 SA-8 with IR-thermal capability by Dec 96
    - Night capable
    - Must radiate target prior to missile launch
  - » 4 ZSUs / 2 more SA-8s with IR-thermal capability by AWE rotation
  - » SA-9s will be converted to SA-13s by AWE rotation
    - **Disadvantage to Krasnovians**
      - **SA-13s must radiate target prior to launch (SA-9s use visual engagement and have no prior electronic signal)**
  - » 3rd "Suite" of ASET IV equipment by Summer 97 (2 "Suites" currently)
    - **1 "suite" =**
      - **1 C-3**
      - **2 ZSUs**
      - **1 SA-8**
      - **2 SA-9s**

SECTION IV

TERRAIN & WEATHER

INTERVISIBILITY (IV) LINES

A feature in the terrain caused by gradual slope over distance that prevents observation from one point on the battlefield to another. The terrain rises in elevation from the observer's point of view then slopes downward at a distance, hiding forces behind this line. IV lines are **not** readily apparent from looking at a map.



IV Lines allow a force to remain masked from view in otherwise open terrain. Counterattack forces, ambush positions, antitank positions, and reverse slope defenses all take advantage of IV lines. IV lines will be briefed during orders when discussing terrain. Planners and maneuver forces should be aware of the impact IV lines have on friendly and enemy operations.

NTC RESTRICTED AREAS

1. The following are grids coordinates for Off- Limits, Restricted maneuver , No Dig , and Restricted Dig Areas:

a. OFF LIMITS AREAS:

-All paved roads outside the cantonment areas (may cross at right angles)

-Southern Map Sheet:

-NJ 200965 700 meter radius

-NJ 328984 700 meter radius (Garlic Spring)

-NJ 518981 700 meter radius (Bitter Spring)

-NK 2907 700 meter radius (Archaeological Site)

-Northern Map Sheet:

-NK 544352 700 meter radius (Arrastre Spring)

-NK 214273 1100 meter radius (McLean Lake)

-NK 260312 700 meter radius (Desert King Spring)

-NK 367247 700 meter radius (Drinkwater Spring)

-NK 426281 1300 meter radius (Devouge Spring)

-NK 203205 1600 meter radius (Nelson Lake)

-NK 516328 700 meter radius (Cave Spring)

-NK 153341 700 meter radius (Leach Spring)

-NK 292386 1900 meter radius (Leach Spring)

-NK 330335 700 meter radius (Two Spring)

-NK 502236 700 meter radius (Abandoned mine shafts)

-NK 423282 (Drinkwater)

-NK 097123, 085195, 135164, 1100 meter radius (Pioneer Lake Beds)

-NK 340040 (Bicycle Lake)

-Area bordered by:

-NK 520213, NK 541204, NK 532215, NK 527209

-NK 544204, NK 520213, NK 526206, NK 547206

-NK 532206, NK 547208, NK 535204, NK 544211

-NK 539208, NK 538211

-NK 391255, NK 399255, NK 399257, NK 395258

-NK 393258, NK 391257, NK 391255

-NK 376235, NK 375227, NK 383337, NK 390214

-NK 390235, NK 383235, NK 383230, NK 376230

b. RESTRICTED MANEUVER AREA:

-Proposed Historical District (IAW 1981 National Park Service Agreement) (Dismounted and wheeled traffic authorized) :

NK 455320, NK 484284, NK 521271, NK 540280,
NK 500310, NK 455297, NK 484290, NK 540263,
NK 531280, NK 490310, NK 540270, NK 491290,

NTC RESTRICTED AREAS (CONTINUED)

b. RESTRICTED MANEUVER AREA (Continued):

-Nelson LZ (dismounted and wheeled traffic authorized) :
NK 577060, NK 577o38, NK 599038, NK 596060,

-Rock LZ (dismounted and wheeled traffic authorized) :
NK 241200, NK 238191, NK 278188, NK 276182

-Civilian Recreation (dismounted traffic authorized) :
NK 264014, NK 267004, NK 246986, NK 226995, NK 235010, NK 264014

-Tortoise Preserve (dismounted traffic authorized):

-All areas south of the 90 E-W gridline

c. NO DIG AREAS :

-Leach Lake Tactics Range :
-NK 458330, NK 070330, NK 070424, NK 458424

-Old Range 4 :
-NJ 314981, NJ 322970, NJ 310979, NJ 308974, NJ 310965

-Nelson Impact Area -- North of 20 gridline :
-NK 275200, NK 245247, NK 309247, NK 348217, NK 310965

-Area East of Lucky Fuse :
-NK 470190, NK 480160, NK 480160

-Out of 50 meters on either side of barstow Road (fiber optic cable trace)

-Area SW of Lucky Fuse :
NK 400140, NK 420140, NK 400120, NK 420120

-Echo Valley Area :
-NK 420205, NK 450235, NK 495235, NK 495205

d. RESTICTED DIG AREA :

-Langford :
-NJ 368871, NJ 424871, NJ 501944, NJ 476970, NJ 367918, NJ 368871

-Garry Owen :
-NK 130320, NK 130273, NK 200273, NK 200290, NK 191300, NK 189320, NK 130320

-Nelson : South of 20 Grid Line
-NK 245247, NK 309247, NK 348247, NK 347189, NK 305163, NK 245247

-Lucky Fuse :
-NK 400200, NK 397143, NK 413130, NK428130, NK 446146, NK 400200, NK 457201

KEY TERAIN

1	Hill	NJ 288906	24	West Colorado Wadi	NK 248159
2	Hill 748 and mobility corridor	NJ 362967	25	East Colorado Wadi	NK 270123
3	Hill 691	NJ 394967	26	Hill 910	NK 324129
4	Beacon Hill Pass	NK 334025	27	Crash Hill	NK 256210
5	Bicycle Lake Pass	NK 352026	28	Brown Pass	NK 349168
6	Hill mass	NJ 366930	29	Hill mass	NK 358178
7	Hill mass	NJ 278952	30	Hill mass	NK 165272
8	Hill	NJ 452892	31	Hill mass	NK 302285
9	Bone	NK 542017	32	Pass	NK 308290
10	Whale Gap	NJ 468986	33	Hill mass	NK 320295
11	Red Lake Pass	NK 580010	34	North Leach Lake Pass	NK 330302
12	Red Pass	NK 561038	35	South Leach Lake Pass	NK 330288
13	Pass	NJ 346983	36	Pass	NK 385205
14	Hill mass	NK 393013	37	Pass	NK 393203
15	Hill 751	NK 546068	38	Pass	NK 403254
16	Hill 720	NK 573113	39	Pass	NK 452258
17	Hill 760	NK 494112	40	Pass	NK 485269
18	Hill 780	NK 443118	41	Pass	NK 548187
19	West Hidden Valley	NK 385073	42	Hill mass	NK 547207
20	Brigade Hill	NK 352087	43	Pass	NK 397118
21	Hill 876	NK 402126	44	East Peanut and road network	NK 405109
22	South Debnam Pass	NK 290145	45	Hill 800	NK 410136
23	Hill 1019	NK 315158	46	Road network west of Debnam Pass	NK 294157

COMMON CHECKPOINTS CENTRAL CORRIDOR

1	MARS SITE	NK 101200
2	NORTH GOLDSTONE	NK 115186
3	HILL 1297	NK 134271
4	HILL 1071	NK 152236
5	OP ROZ	NK 157204
6	HILL 1003	NK 158208
7	GARY OWEN	NK 160290
8	HILL 1203	NK 166273
9	HILL 1423	NK 179138
10	ALLIGATOR RIDGE	NK 190234
11	HILL 1478	NK 195105
12	HILL 986	NK 201218
13	NELSON LAKE	NK 200200
14	McLEAN LAKE	NK 210270
15	HILL 1214	NK 230098
16	KHYPHER PASS	NK 240262
17	HILL 1001	NK 242244
18	OPFOR CUT	NK 251090
19	BENCHMARK 999	NK 251125
20	CHINAMAN'S HAT	NK 254157
21	CRASH HILL	NK 254210
22	JOSE RODRIGUEZ PASS	NK 257146
23	RICE BOWL	NK 260150
24	MATTERHORN	NK 264168
25	HILL 981	NK 272218
26	HILL 1066	NK 279140
27	THREE SISTERS	NK 294138
28	TRAFFIC CIRCLE	NK 303109
29	DEBNAM PASS	NK 303152
30	PREY CUT	NK 308157
31	BLACK BASALT	NK 316117
32	HILL 899	NK 317086
33	COLORADO WASH	NK 318114
34	HOLLY CUT	NK 320155
35	HILL 910	NK 324129
36	OP BROWN	NK 331172
37	BROWN CUT	NK 335165
38	HILL 1144	NK 335214
39	ARBAUGH'S ROCK	NK 347170
40	BRIGADE HILL	NK 353087

41	HILL 1141	NK 361163
42	GOAT TRAIL	NK 361176
43	THREE CORNERS	NK 362094
44	OLD HARRY	NK 364152
45	HILL 781 WEST	NK 368081
46	FOUR CORNERS	NK 369117
47	SAW TOOTH	NK 370190
48	MILLER'S HOLE	NK 385084
49	GOLD PASS	NK 385205
50	PUMP HOSE	NK 387151
51	ROCK PILE	NK 394131
52	GRANTE PASS (WEST)	NK 395204
53	HIDDEN VALLEY	NK 400080
54	PEANUT	NK 400111
55	HILL 876	NK 401125
56	GRANITE PASS	NK 407204
57	HILL 800	NK 411137
58	CHOD HILL	NK 413106
59	IRON TRIANGLE	NK 429157
60	HILL 780	NK 442118
61	PIZZA HUT	NK 465133
62	RACE TRACK	NK 469144
63	RANGE 18 SHACK	NK 483127
64	HILL 824	NK 490093
65	HILL 760	NK 495112
66	SIBERIA	NK 500060
67	HILL 781	NK 507092
68	CALIFORNIA WASH	NK 510170
69	COLUMBIA WASH	NK 530114
70	PASSAGE TO INDIA	NK 544184
71	SNOWCONE	NK 551106
72	ICKY AND DICKY	NK 560128
73	HILL 701	NK 560170
74	HILL 699	NK 561119
75	HILL 720	NK 575111
76	RANGE 23	NK 578190
77	RED PASS RD.-E.RANGE RD.	NK 582150
78	ECHOL'S WADI	NK 592150
79	E. RANGE RD-SILVER LAKE	NK 592157
80	EAST GATE	NK 617171

COMMON CHECKPOINTS SOUTHERN CORRIDOR

81	PAINTED ROCKS	NJ 229957
82	HILL 957	NJ 237917
83	HILL 938	NJ 260912
84	TV HILL PASS	NJ 261957
85	TV HILL	NJ 267953
86	909 NORTH	NJ 281925
87	909 SOUTH	NJ 295901
88	HILL 837	NJ 296886
89	SPIDER	NJ 299939
90	BIG SANDY	NJ 290830
91	GREAT SANDY WASH	NJ 300930
92	GARLIC SPRINGS	NJ 328984
93	BEACON HILL	NK 332018
94	BEACON HILL PASS	NK 338013
95	AFGANISTAN	NJ 330990
96	LANGFORD LAKE	NJ 340940
97	SURVEY ROCK	NJ 344948
98	BOWLING ALLEY	NJ 345981
99	THE SHELF	NJ 350990
100	BIKE LAKE PASS	NK 354022
101	OP-1	NJ 359934
102	VALLEY OF DEATH	NK 360000
103	HILL 748	NJ 360964
104	THERMOPYLAE	NJ 360960
105	NO NAME VALLEY	NJ 380980
106	HILL 692	NJ 383997
107	OP-2	NJ 387943
108	OP-2 RANGE SHACK	NJ 392943
109	LITTLE ITALY	NK 395014

110	NO NAME HILL	NJ 398955
111	YELLOW BRICK ROAD	NJ 403990
112	GRIZZLY	NJ 405969
113	NOVEMBER FOX	NJ 415983
114	OP JUANITA	NJ 421977
115	WORD'S WADI	NJ 440983
116	JOHN WAYNE PASS	NK 446071
117	FURLONG	NJ 450981
118	HILL 729	NJ 451981
119	AUSTRALIA	NJ 460890
120	WHALE GAP	NJ 467984
121	TIP OF THE WHALE	NJ 473983
122	JOHN WAYNE FOOT HILLS	NK 480060
123	CROW'S NEST	NJ 499971
124	OP CASEY	NJ 500993
125	HILL 466	NK 510010
126	TONEY	NJ 518988
127	BITTER SPRINGS	NJ 518981
128	FINGER	NK 522070
129	LINCOLN TUNNEL	NJ 528932
130	DALILLAMA WASH	NJ 540980
131	OP BONE	NK 542017
132	HILL 751	NK 546068
133	FIRE POINT 200	NK 547027
134	BUG PIT	NK 549006
135	HILL 758	NK 550053
136	POTA POTTI WADI	NK 557055
137	RED LAKE PASS	NK 568030
138	CHILI BOWL	NK572023

COMMON CHECKPOINTS LIVE FIRE AND MISCELLANEOUS

139	BENCHMARK 1007	NK 115185
140	PIONEER SITE	NK 136160
141	TRAINING AREA BRAVO	NJ 190830
142	HARPER'S FERRY	NK 258071
143	ALPINE VALLEY	NK 290270
144	DUSTBOWL	NK 299012
145	COYOTE CANYON	NK 300070
146	WATER TOWER	NK 309042
147	JORDAN'S JUNCTION	NK 314086
148	BRUNO	NK 380220
149	McQUEENS	NK 395206
150	KILLER ESCARPMENT	NK 400251
151	OP HILL	NK 445290
152	ENGINEER PASS	NK 450259
153	HOT DOG	NK 458296
154	ECHO VALLEY	NK 460210
155	NEEDLE	NK 463270
156	BUNKER	NK 465275
157	GOAT MOUNTAIN	NK 495293
158	ALPHA PASS	NK 525217
159	BRAVO PASS	NK 530202
160	REFRIGERATOR GAP	NK 541259
161	ARROWHEAD	NK 566239

NTC LUNAR DATA - June 1997

Moonrise / Moonset, Night Vision Goggle Periods, and % Illumination
FOR: Fort Irwin, CA (China Lake)
Latitude: 35 deg 17 min N / Longitude: 116 deg 38 min W
Flying Altitude: 0 ft.

ALL TIMES ARE GREENWICH MEAN TIME MINUS 7 Hrs 0 Mins
(Corrected for Daylight Savings Time)

DAY	MOON RISE	START NVG	STOP NVG	MOON SET	%ILLUM
1	0316	-----	-----	1719	13
2	0402	-----	-----	1816	7
3	0451	-----	-----	1909	2
4	0543	-----	-----	1958	0
5	0637	-----	-----	2042	1
6	0731	-----	-----	2122	3
7	0826	-----	-----	2159	7
8	0920	-----	-----	2232	12
9	1014	-----	-----	2304	19
10	1108	2028	2102	2336	27
11	1202	2027	2130	++++	35
12	1255	2027	2158	7	45
13	1351	2026	2224	39	54
14	1448	2026	2255	114	64
15	1547	2025	2327	153	73
16	1646	2025	++++	236	82
17	1746	2106	0008	324	89
18	1844	2201	0100	419	95
19	1938	2249	0203	521	99
20	2028	2329	0315	626	100
21	2114	++++	0433	735	98
22	2157	0003	0524	844	94
23	2237	0038	0525	952	87
24	2316	0113	0526	1100	78
25	2355	0149	0527	1206	67
26	++++	0226	0527	1310	56
27	0035	0306	0528	1413	45
28	0116	9350	0529	1513	34
29	0201	0436	0500	1611	24
30	0248	-----	-----	1704	16
31	452	554	1951	2053	9

NVG = Night Vision Goggle
For NVG LUNAR ALT > 30 deg, SOLAR ALT < -13 deg, and LUNAR ILLUM > 23%

NTC SOLAR DATA - July 1997

Nautical Twilight, Sunrise and Sunset
FOR: Fort Irwin, CA (China Lake)
Latitude: 35 deg 17 min N / Longitude: 116 deg 38 min W
Flying Altitude: 0 ft.

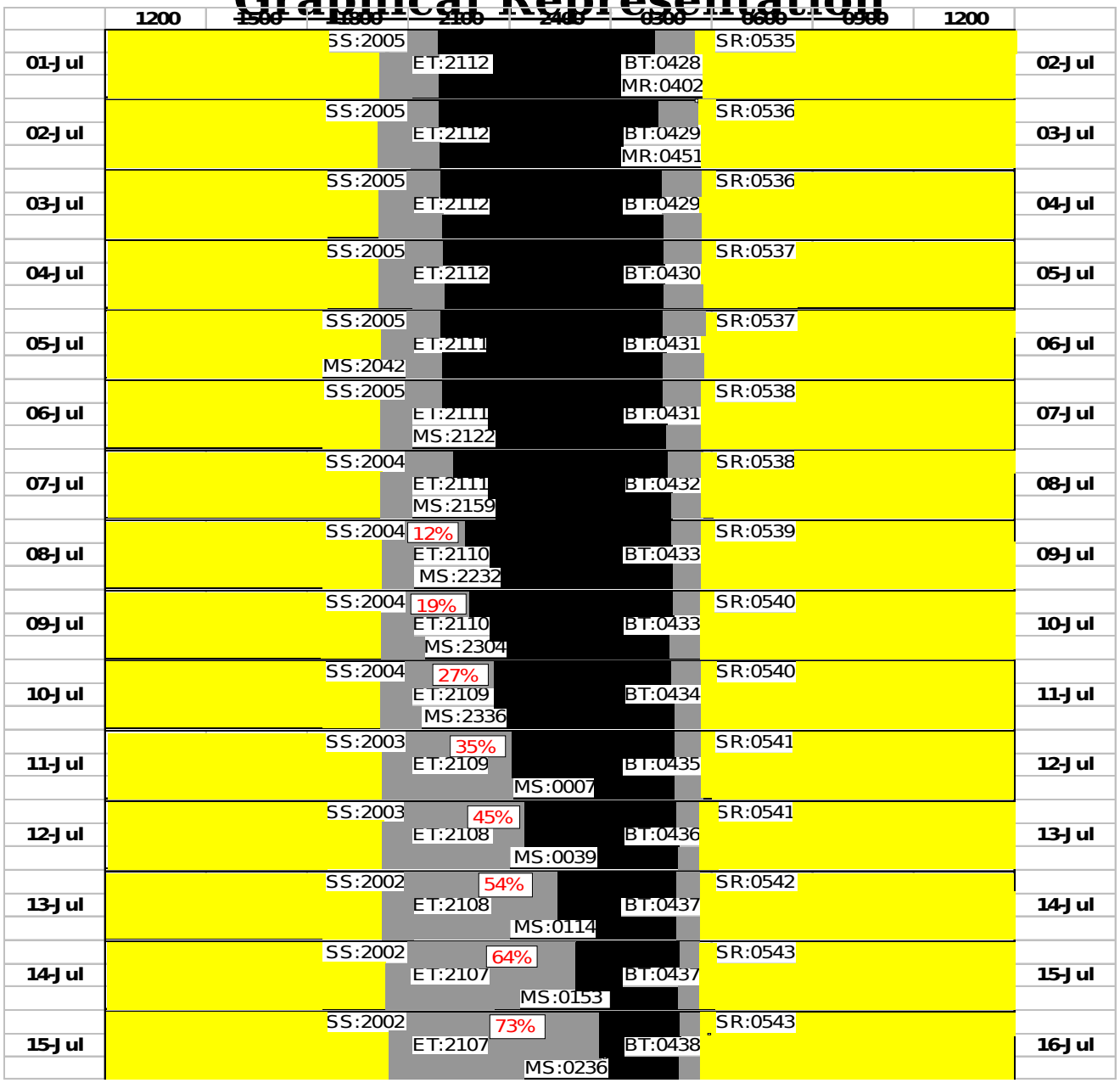
ALL TIMES ARE GREENWICH MEAN TIME MINUS 7 Hrs 0 Mins
(Corrected for Daylight Savings Time)

DAY	BMNT	SUN RISE	SUN SET	EENT
1	0428	0535	2005	2112
2	0428	0535	2005	2112
3	0429	0536	2005	2112
4	0429	0536	2005	2112
5	0430	0537	2005	2111
6	0431	0537	2005	2111
7	0431	0538	2004	2111
8	0432	0538	2004	2110
9	0433	0539	2004	2110
10	0433	0540	2004	2109
11	0434	0540	2003	2109
12	0435	0541	2003	2108
13	0436	0541	2002	2108
14	0437	0542	2002	2107
15	0437	0543	2002	2107
16	0438	0543	2001	2106
17	0439	0544	2000	2105
18	0440	0545	2000	2104
19	0441	0545	1959	2104
20	0442	0546	1959	2103
21	0443	0547	1958	2102
22	0443	0548	1958	2101
23	0444	0548	1957	2100
24	0445	0549	1956	2059
25	0446	0550	1956	2058
26	0447	0551	1955	2057
27	0448	0551	1954	2057
28	0449	0552	1953	2056
29	0450	0553	1952	2055
30	0451	0554	1952	2054
31	452	554	1951	2053

BMNT = Beginning Morning Nautical Twilight (Sun 12 degrees below horizon an
EENT = Ending Evening Nautical Twilight (Sun 12 degrees below horizon and fa

NTC SOLAR / LUNAR DATA - July 1997

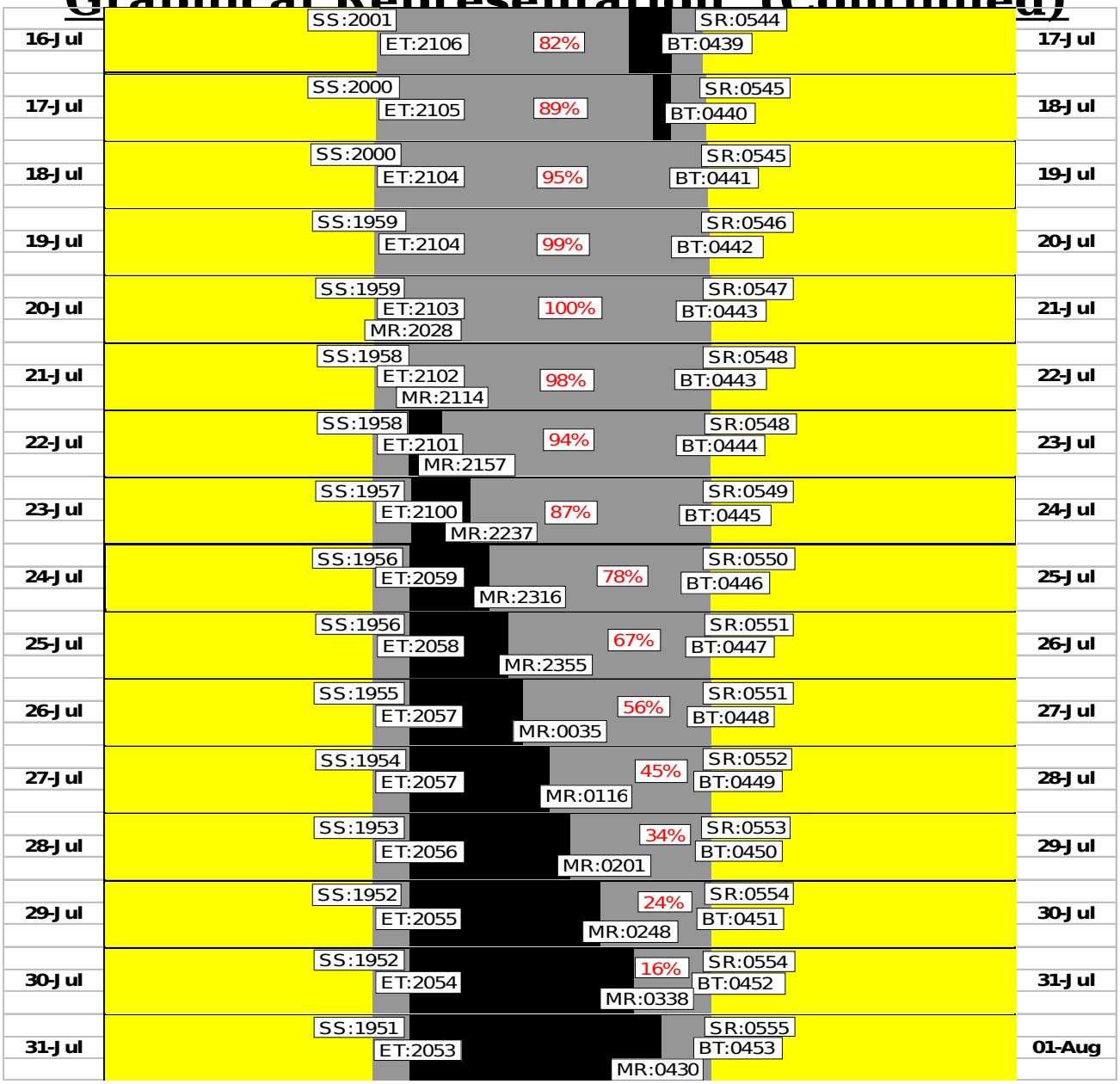
Graphical Representation



NOTE: The blackened areas represent times of "0" Illumination. The percentages give the percent of illumination for that night.
SS = Sun Set
ET = EENT (Ending Evening Nautical Twilight)
MR = Moon Rise
BT = BMNT (Beginning Morning Nautical Twilight)
SR = Sun Rise

NTC SOLAR / LUNAR DATA - July 1997

Graphical Representation (Continued)



NOTE: The blackened areas represent times of "0" Illumination. The percentages give the percent of illumination for that night.
SS = Sun Set
ET = EENT (Ending Evening Nautical Twilight)
MR = Moon Rise
BT = BMNT (Beginning Morning Nautical Twilight)
SR = Sun Rise

NTC Climate Summary

	PARAMETER	MONTH		
		June	July	August
Temperature (F)	Extreme Maximum	112	117	112
	Mean Maximum	91	104	95
	Mean	75	89	80
	Mean Minimum	59	73	65
	Extreme Minimum	41	50	48
Humidity	Mean Relative Humidity % 07L	38	32	35
	Mean Relative Humidity % 19L	17	15	16
Precipitation	Maximum Monthly	0.38	1.1	3.4
(Inches)	Mean Monthly	0.04	0.3	0.4
	Minimum Monthly	0.00	0.00	0.00
	Maximum 24 Hour	0.37	0.2	0.6
Mean #Days with	Precipitation Greater Than .01"	1	< 0.5	1
	Precipitaion Greater Than .50"	< 1	0.00	< 0.5
	Thunderstorms	1	4	1
	Fog (Vis less than 7 Miles)	< 1	0	0
Winds	Mean Direction	SW	SW	SW
	Mean Speed	8	8	8
	Maximum Gust	51	52	50

WEATHER EFFECTS MATRIX

MISSION	WEATHER ELEMENT	FAVORABLE (GO)	MARGINAL (SLOW-GO)	UNFAVORABLE (NO-GO)
Fire Support	Visibility	More than 8.0 Km	5.0 to 8.0 Km	Less than 5.0 Km
CAS	Ceiling	More than 3,000 ft	500 to 3,000 ft	Less than 500 ft
Intelligence	Visibility	More than 5.0 Km	3.0 to 5.0 Km	Less than 3.0 Km
(Fixed Wing Visual Recon)	Ceiling	Less than 3/8 clouds	3/8 to 5/8 clouds	More than 5/8 clouds
Air Defense Artillery	Visibility	More than 5.0 Km	3.0 to 5.0 Km	Less than 3.0 Km
(Stinger/Avenger)	Ceiling	More than 5,000 ft	3,000 to 5,000 ft	Less than 3,000 ft
	Rainfall	Less than 0.5 inch/hr	0.5 to 1.0 inch/hr	More than 1.0 inch/hr
NBC	Wind below 16m	Less than 5 kts	5 to 7 kts	More than 7 kts
(Chemical - Artillery Delivery)	Stability	Stable	Neutral	Unstable (Lapse)
Smoke	Temperature	More than 21°C	4° to 21°C	Less than 4°C
	Humidity	More than 60%	40 to 60%	Less than 40%
	Precipitation	None	Light	Moderate or Heavy
Airborne	Visibility	More than 5.0 Km	1.0 to 5.0 Km	Less than 1.0 Km
(From C-130 to C-141)	Ceiling	More than 500 ft	300 to 500 ft	Less than 300 ft
	Surface Wind	Less than 10 kts	10 to 13 kts	More than 13 kts
	Precipitation	None	Light	Freezing Rain or Hail
Air Assault	Visibility	More than 1.5 Km	0.4 to 1.5 Km	less than 0.4 Km
	Ceiling	More than 500 ft	300 to 500 ft	Less than 300 ft
	Surface Wind	Less than 10 kts	10 to 13 kts	More than 13 kts
	Precipitation	None	Light	Freezing Rain or Hail
Aviation	Visibility	More than 1.5 Km	0.4 to 1.5 Km	Less than 0.4 Km
(Rotary Wing)	Ceiling	More than 500 ft	300 to 500 ft	Less than 300 ft
	Surface Wind	Less than 20 kts	20 to 30 kts	More than 30 kts
	Precipitation	None	Light	Freezing Rain or Hail
Maneuver / Mobility	Visibility	More than 1.5 Km	0.8 to 1.5 Km	Less than 0.8 Km
(Tracked Vehicles - Day)	Rainfall	Less than 0.1 inch/hr	0.1 to 0.5 inch/hr	More than 0.5 inch/hr
Maneuver / Mobility	Visibility	More than 0.2 Km	0.1 to 0.2 Km	Less than 0.1 Km
(Tracked Vehicles - Night)	Rainfall	Less than 0.1inch/hr	0.1 to 0.5 inch/hr	More than 0.5 inch/hr
Maneuver / Mobility	Visibility	More than 0.3 Km	0.1 to 0.3 Km	Less than 0.1 Km
(Dismounted Infantry)	Rainfall	Less than 0.1 inch / hr	0.1 to 0.5 inch/hr	More than 0.5 inch/hr
	Temperature	Less than 32°C	More than 32°C	
Maneuver / Weapons Positioning	Visibility	More than 3.0 Km	0.5 to 3.0 Km	Less than 0.5 Km
(Anit-Armor Direct Fire)	Temperature	More than -18°C	Less than -18°C	
Fire Support	Visibility	More than 5.0 Km	1.5 to 5.0 Km	Less than 1.5 Km
(155 mm)	Ceiling	More than 800 ft	500 to 800 ft	Less than 500 ft
	Surface Wind	Less than 35 kts	35 to 50 kts	More than 50 kts